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ART. I. — *Clinical Observations in Private Practice.* By E. B. HASKINS, M.D., of Clarksville, Tenn.

(CONTINUED FROM MARCH NUMBER, PAGE 191.)

OBSERVATION IV.—*Three Cases of Simple Spermatorrhea.*

CASE I.—In the spring of 1846, I was consulted by Mr. ——, a young gentleman, aged about 25 years, of rather stout frame and of a good constitution. He had been the subject of gonorrhea about twelve months before, but was relieved in a short time, and had no return of the disease. He had been guilty, as he declared, of great venereal excesses; that he had attempted to reform his habits on account of a "nervous weakness" he thought his excesses were bringing upon him; but instead of the relief he expected, he was growing worse from nightly emissions of semen—occurring every night, and sometimes more than once.

Bowels regular; appetite moderately good; is restless at night; easily fatigued; desponding in spirits; urine, when left to stand a short time, exhibits the ammoniomagnesian pellicle; otherwise healthy; no hemorrhoid, or other sources of irritation about the rectum.

℞. Pulv. camph., } ää ℈ij.
Extr. hyosci., }
Sulph. quin., } ää ℈j.
Sulph. ferri. }
M. ft. Pil., No. xl.

One pill to be taken at a time, morning and night, for two weeks, then omit for a few days, and again resume them; exercise temperately on foot; sleep on a hard bed with light covering; and refrain from indulging erotic ideas.

Health was restored in about eight weeks.

Case II.—July, 1847, Mr. ——, aged about 24 years, low in stature, and muscular; rather pale complexion, and of good moral habits; informs me that he has in prospect a matrimonial connexion, but thinks he is not in a condition to fulfil his engagements.

He says he is greatly troubled with nocturnal emissions, and, indeed, is so very excitable that he can, by the force of the imagination alone, provoke an emission at any time.

He feels no injury to his general health, except "a nervousness." Appetite good; sleeps well; bowels regular; no source of irritation in the anal region; has never had gonorrhea, or been addicted to sexual indulgance. Masturbation was not acknowledged, but was suspected from his manners, etc. Urine reported to be healthy.

Treatment was the same as in case 1st, except the addition of inunction of camphorated mercurial ointment over the perineal surface.

I heard no more from this case until the latter part of October, when he had been married about three weeks.

He informed me that he had used no other remedies than those ordered by me, and that he had regained his health prior to the consummation of his engagement.

CASE III.—September 1, 1849, Mr. ——, aged about 26 years, of bilio-nervous temperament, small frame of body, but good constitution, complains to me of debilitating nocturnal emissions.

He has been subject to nocturnal seminal emissions for the last two years. They at first recurred at distant intervals, but they have gradually grown more frequent, until he now is disturbed by them nearly every night, and he *feels* that his health is beginning to suffer from them.

He complains of occasional palpitation of the heart; dull headache, languor, and indisposition to mental or bodily exertions; rest at night often disturbed by "bad dreams;" appetite failing; bowels constipated; urine abundant, pale, slightly acid, and of low specific gravity; no hemorrhoids or anal fissures.

He is chaste in his habits, but acknowledges that he practiced onanism freely in the early part of his life; has never had gonorrhea.

Treatment pursued was the same as in case 1st, with the addition of pills of compound extract of colocynth to keep the bowels open.

Nothing novel is claimed for the cases here recorded. They constitute what Lalemand would term the "most simple cases of nocturnal pollutions" and for which he would prescribe the artificial sulphuretted baths. According to Dr. Dunglison, however, such cases of nocturnal pollution as do not occur more than once in the course of the night, and every night, ought scarcely, in a young and robust individual, to be esteemed a pathological condition."* Without stopping to inquire wheth-

*Cyc. of Prac. Med. (Amer. Ed.) Art. Spermatorrhea.

er or not such activity of the seminal secretion, or irritability of the vesiculæ se inales, has overstepped the physiological bounds, it will hardly be questioned that every individual, however young and robust, who desires decent and comfortable repose, would be glad to be relieved of such annoyance. Besides, whenever any organ has reached the maximum of functional activity, the cautious practitioner will rather anticipate the pathological accession, by prudent steps to reduce the function to as near the medium of activity as is compatible with health.

On this point I would further remark, that I have never known robust health to be, *per se*, a cause of spermatorrhea. I have had many cases of the kind under my notice, and in the absence of all local sources of irritation, I have always found, or had good reason to suspect, that abuse of the sexual passion was the prime cause of the malady.

OBSERVATION V.—*A Case of Spermatorrhea; complete impotence; urethral irritation; cauterization; partial relief; facial palsy.*

July, 1848, I was consulted by Mr. ——, who is 21 years of age; six feet high; spare frame; stoops in the shoulders; large hands and feet; small head; restless and timid expression of countenance; but little beard. Genital organs above the medium size, and of healthy appearance, except a slight tumefaction at the end of the glans penis, which was smeared over with a gum-like secretion.

He gave the following history of himself: He is the only surviving offspring of wealthy parents; was born and reared in South Carolina. At about 12 years of age he commenced the practice of masturbation, which soon grew into a habit, that was continued until about

eighteen months ago, when the state of impotence rendered abortive his efforts. From this time nocturnal pollutions (and perhaps diurnal also) harrassed him. In a short time, he lost all amative feeling. After the age of puberty he did not practice masturbation oftener than three times a week, on an average; is not positive, however, as to that. He was early impressed with the impropriety of his practice, and made frequent ineffectual attempts to reform; has been traveling for the last three years in Europe. He has never had sexual intercourse, and therefore has never had venereal disease. He has had no venereal desires for more than twelve months;—made several ineffectual efforts at venery before he lost all inclination, but failed on account of imperfect erection. He could at that time practice onanism with perfect and prolonged erection. He has now sometimes partial erections, but without desire, and they are painful; he is much troubled with emissions at night, sometimes during dreams, but not pleasureable. Most of the emissions are without any erection, and attended with no pleasure.

His general health is good. He is fond of hunting and fishing, and takes a good deal of exercise; nor is he easily fatigued. There are observable some muscular twitchings about the face and eyelids, particularly after emissions at night.

Urine natural in quantity, and of healthy appearance. For want of a microscope it was not examined for spermatozoa.

On passing a bougie down the urethra, a point of irritation was discovered in the prostatic portion of that canal.

The length of the canal being taken on a silver catheter, the point of irritation was cauterized with Lademand's *porte caustique.* Sulphate of iron, as a tonic, was ordered twice a day, and a cold infusion of buchu

to be daily drank; with injunctions to take regular but moderate exercise on foot, or in a carriage, sleep on a hard bed with little covering, and avoid lying upon the back; and to bathe the genital organs three or four times a day with cold water. Diet to be nourishing.

By the first of September, there was evident improvement. The nocturnal emissions had not been so frequent, and the patient said he had some return of sexual desire, with slight and transient erections. Within the last two or three days, however, he had suffered some increase in the frequency of his emissions.

The urethra was again cauterized, (Sept. 3), and the original treatment renewed.

In a few days, my patient called at my office, carpet-bag in hand, saying that he was hurrying to a steamboat lying at the wharf, to take passage for Nashville, and thence home; that he was much better; had not had an emission since the last cauterization; but that he wished me to tell him what was the matter with his face. He was affected with facial palsy, with complete lagophthalmia of one side. The paralysis had come on him the night before, without his consciousness, and there was no feeling of indisposition at the time of the interview. As he was determined to go on, I explained to him the critical nature of his condition, placed a bandage over the affected eye, gave him a purgative, and advised him to place himself under medical treatment as soon as he reached Nashville. I learned, indirectly, that he did so, and after a long confinement he was restored to health. I have had no positive knowledge of his case since he left me. It should have been mentioned before, that the night before the attack, he slept upon the floor, exposed to a current of air.

Remarks.—This case loses much of its interest, for the want of a continued history.

It is by no means a new circumstance for the brain

and nervous system to suffer injury, and that irreparably too, from an exhausting spermatic flux; yet each form of cerebral or nervous lesion, if carefully observed, and faithfully reported, may, in time, throw some light upon the remarkable pathological relations existing between the brain and nervous system and the spermatic organs.

(To be continued.)

ART. II.—*A Case of Strangulated Hernia, in which an operation was necessary.* By W. J. OWEN, M.D., of Port Gibson, Miss.

In November last, a negro man, slave, aged thirty-three years, stout frame, was found complaining of great pain in the inguinal region, extending to the thigh and abdomen; and attended with considerable nausea. On examination it proved that he had failed to reduce a hernia of which he had been the subject, and that he had been in that condition for forty hours. I was called conjointly with Dr. C. W. Wilson, of this place, and the patient presented the following appearance when we reached him:—A large scrotal tumor in the right side; continual hiccup and retching; pulse tense and full; vomiting, but not stercoraceous.

We resorted to the taxis, warm bath, and cataplasms of tobacco, but without any decided effect, and an operation was decided upon.

When the integuments were laid open, the epiploon escaped, and we found it necessary to excise a portion of this membrane in order to reduce the tumor—a practice condemned by some, I am aware, but attended by no bad results in this case. Eight or ten ounces of serum had been poured out into the peritoneal sac, and

lymph was found in patches over the strangulated bowel. The spermatic cord was much enlarged, and on inquiry, I learned from the master that he had been the subject of spermatocele, in consequence of which he was for a good while unable to apply a truss. The operation was successful and the cure complete.

July 1, 1851.

ART. III.—*Pharmacy of the Greeks and Romans.* Translated from the French of M. Cass; by WM. H. COBB, M.D., of Louisville, Kentucky.

Claudius Galen was born at Pergamus, in Asia Minor, in the 131st year of the Christian era, and died in the 201st year, at the age of 70. He lived, consequently, under the emperors Adrien, Antoninus, Marcus Aurelius, Lucius Verus, Commodus, Pertinax, and Septimus Severus. His father, named Nicon, was an architect and senator. A dream determined him to choose the study of medicine for his son. He was rich and learned, and devoted himself assiduously to the education of young Galen. The latter, after the death of his father, and when he had arrived at the age of 21, betook himself to Smyrna, to study philosophy, then to Corinth, and afterwards to Lycia and Palestine, to investigate the jet and asphaltus. Alexandria was then the center, as it were, of literature. There Galen passed many years, and perfected himself in the study of anatomy, one of the branches of the science which he made the favorite object of his researches.

At the age of 28 years, he returned to his own country, where the priests of Æsculapius entrusted him with the office of attending upon the athletes. Some years after, a revolution having arisen in Pergamus, he quitted

that city and repaired to Rome; he was then 34 years old. There he dislocated his arm, which, however, did not hinder him from attaining great celebrity. He allied himself with the savants, the philosophers, and great personages, and among others with Severus, who afterwards became emperor. The following year, during an epidemic which raged at Rome, he went to Brindes and embarked for Greece. He visited Cyprus, and brought thence the diphrix or diphriges (the oxide of copper) then much employed as an astringent and detergent. His voyages, always undertaken for the purpose of increasing his knowledge, proved to him so many opportunities for making useful researches in natural history. Thus at Cyprus, he studied metallurgy; at Palestine he investigated the opobalsamum; at Lemnos the terra sigillata. He was 38 years of age when Marcus Aurelius and Lucius Verus, who were then in Illyria to carry on the war against the Macedonians, summoned him before them. He traversed, on foot, Thrace and Macedonia, and appeared before them at Alexandria; there he prepared the Theriaca Andromachi, for the use of the two emperors. The plague having broken out and destroyed Lucius Verus, Galen returned to Rome, where he was appointed physician to the youthful emperor, Commodus. He was more than 50 years old when he returned to his own country, where he died, says, Suidas, at a very advanced age.

Without entering minutely into the medical doctrines of Galen, still we cannot give an idea of his system, relative to medicines, without touching upon certain general matters appertaining to these doctrines: this we do, nevertheless, with all the reserve which our principal object imposes. Here then, in a few words, is this system:—

The elements of all bodies, according to the theory of Empedocles, adopted by Hippocrates, are fire, water,

air, and earth. The qualities of these elements are, heat and cold, dryness and moisture. These same qualities are met with in medicines, and each part of our organism exercises upon them an action which depends upon the similitude existing between the organ and the medi ine.

As long as no one of these elements predominates in the organism, and the parts of which it is composed, have the proper blending temperament among themselves, they perform their functions in a regular manner. But as soon as one of these is in excess, the equilibrium is destroyed, it results in loss of the proper blending; and the functions are altered. That these organic constituents may vary in their size, figure, number, and situation, it even suffices that they merely depart from their ordinary condition; this it is, which constitutes good or bad health.

Medicine has two objects, the preservation of health and the cure of disease. The duty of the physician is to maintain th *temperaments* and to correct any departure from it, by remedies bearing a relation to these different conditions.

The kind or cause of disease always indicates the remedy, but there are causes which exist in the nature of the organism itself, and others which result from accidents. What nature has not accomplished it is clear the physician cannot accomplish, but he can second her efforts for re-establishing the equilibrium necessary to the state of health.

The elementary qualities predominating in an individual, constitute what is termed his temperament. These qualities may be combined among themselves, multiplying the varieties of temperament.

Every active medicinal substance, like the elements of natu e, can be hot or cold, dry or humid. To the knowledge of these primary qualities we attain, by that of their secondary qualities, the physical properties. The

physical properties of medicine consequently determine the manner of using them.

The primary qualities have various degrees. The chicory, for example, is cold in the first degree, pepper hot in the fourth. The taste and other sensible properties, as bitterness, acidity, and saltness, belong to the primary qualities. Saltness, for example, is warm, bitterness is dry, and acidity is cold, &c. These qualities may belong to substances either directly or indirectly. Ice is of itself cold, mandragora and the hemlock are cold merely by the effects they produce. Galen divides medicinal agents, relatively to their action, into specifics, poisons, and counter poisons. Purgatives, according to him, act by the whole of their substance, and each possesses the power of attracting a particular humor corresponding to its own nature.

But let us not enter more deeply into this exposition. Does it not surpass belief that such a system should be the most brilliant result of the meditations of antiquity relative to the action of medicines? Can we conceive it possible that this doctrine could be maintained during the 13 centuries it reigned in Europe, Africa, and Asia, and that it should flourish also during our own times among certain nations, but little advanced in science, it is true, as the Turks and Arabs? This is nevertheless the truth, and it is one of the most striking examples of the authority which, even in the sciences, the talent for exposition, the prestige of the name, and the personal merit of a superior man can exercise. To explain such wonderful success, we must seek for the cause in the extraordinary events attending the appearance of the philosopher of Pergamus.

Medicine was then divided into a multitude of sects and schools, in which reigned vain subtilties and futile discussions. Galen did not wish to belong to any one of these schools, but sought to lead science into the path of Hip-

pocrates, the path of truth. He collected the doctrines and opinions of all the celebrated men who had preceded him, and from this rubbish he raised a system ingenious and easy of comprehension, which he developed by the aid of instruction full of charms and seductive graces. He put an end to the uncertainties of his time, and devoted himself to introducing into medicine the scientific forms borrowed from the peripatetic school. Talents of an elevated order, unquestionable genius, the number of his writings, the order and logic which characterize them, the purity and elegance of his style, all, even his egotism and assurance, contributed to captivate the imagination and to earn for him a glory which for its eclat and duration in the history of the sciences, can only be compared with that of Aristotle.

Galen produced many excellent philosophical works. In his youth, he had written commentaries upon the logic propounded by Chrysippus; in them, he expressed himself with great facility—his knowledge is universal. The number of his writings amounts to not less than five hundred. In our day, we do not possess more than a third of them. Among these writings are found many upon medicinal substances, and a much larger number upon the composition of medicines. The fourth and fifth part of his works contain eleven books which treat of simple medicines, one of succedanea or quipropro, two of the theriaca and mithridate, seven of the composition of medicines by genera, and ten of the composition of medicines according to the places of their application.

Not content with having collected all that his predecessors had written upon this subject, Galen got together from all quarters receipts of pharmaceutical preparations, and oftentimes purchased them at a very high price. Although he approved of the simplicity and reserve of Hippocrates relative to the employment of medicinal agents, yet it did not prevent him from making use of them in

their most complicated forms and in great number. Materia medica is, in fact, one of the points upon which he differed most widely from the physicians of Cos, and yet the most monstrous of these masses of drugs cannot with justice be attributed to him. We may even remark that his own formulas are less loaded with them than those borrowed from others. He condemns, in more than one instance, the abuses which are practiced in them; he blames physicians who recommend cosmetics, and especially those who taught the preparation of poisons; but the care which he took to write so lengthily upon pharmacology sufficiently evinces the importance he attached to this subject. We may add that his example has exerted much influence upon the combination of medicines, a combination in which the Arabs especially excelled and which has been handed down almost to our day. It is because he is the physician who has written more at length on this subject that this division of the art has borne for so long a time the name of Galenic pharmacy. The distinction between the Galenic and chemical pharmacy was established about the time of Paracelsus and Van Helmont, for the purpose of separating the physicians who still cling to the doctrine of Galen from those who rallied under the banners of the new sect. We know that Paracelsus strove to substitute for the system of the elementary qualities that of the chemical elements recognised by his own school, a system which was linked by more than one tie to the absurdities of the cabala,and which so long retarded the upward flights of rational chemistry. In the majority of the pharmacopeias of the seventeenth and even of the eighteenth century, medicines are divided into two great classes, the first comprehends all medicines of the organic kingdom prepared by simple mixture, and in which we do not suspect the occurrence of chemical decomposition; the second includes all those into whose composition enter acids, alkalies, salts, metals, &c., and

in which chemical phenomena play an important part.

The authority of Galen with respect to medicines continued long after the authority of his medical doctrines had ceased to exist. During the sixteenth century, the former commenced to diminish, and early in the seventeenth century the discovery of Harvey gave it a final blow. Like Aristotle, after having for thirteen centuries been the oracle of science, mankind ended by denying him even those titles of glory to which he was most justly entitled. But if the respect and enthusiasm which he inspired during so long a period was exaggerated, the neglect and ingratitude of moderns is not less so.—Galen is the last and one of the most eminent physicians of whom antiquity can boast. No one was ever endowed with a genius more brilliant, erudition more profound, or talents more varied. To him we are indebted for the preservation of the precious remains of antiquity and of the true principles of the school of Cos. His authority in medicine equalled that of Aristotle in philosophy. His writings are the most abundant and the best arranged that the science of ancient times has handed down to us. Are we then to blame him for being the object of a superstitious idolatry at an epoch when medicine derived nothing from its own ranks, but subsis ed merely upon that which was bequeathed to it by one of the most brilliant periods of civilization? A mind of the most refined order, the purest taste, adorned this genius, already so powerful by its knowledge, the most extensive, perhaps, of his time. His elocution was rich and facile, his style so pure and elegant as to remain as a classical authority. Perhaps he sometimes abused these rare qualities and presumed upon the influence which they lent him. The desire of shining forth, of rendering truth more captivating, of explaining even that which was inexplicable, oftentimes bore him beyond his proper limits. But ought we not to pardon something in superior minds, and what-

ever may be the height attained by their talents, do they not cling by a certain feebleness to the conditions of human nature?

Galen was superstitious; he believed in dreams and divinations. He had a veritable worship for Æsculapius, whom he styled the father of his country, and who, he believed, inspired him with the employment of certain curative agents He says somewhere in his works that the sedative properties of the juice of the lettuce were revealed to him by the dream of one of his patients. His vanity was excessive. Hippocrates indeed opened the way to medical research, said he, but it was he himself who leveled the opposing difficulties, as Trajan rendered practicable the routes of the Roman empire. Like the greater part of the physicians of his period, Galen practiced at the same time the different branches of the healing art. He especially practiced pharmacy, and occupied, as he himself says, an office in the *Via Sacra.* This office was destroyed by a conflagration under the reign of Commodus. A part of his works was consumed by another conflagration which consumed the temple of Peace. Is it then a paltry glory—are these vain titles to renown for a scientific profession to be able to cite among those who have practiced it such men as Hippocrates, Aristotle, Theophrastus, and Galen—of combining among the number of those who have served in its ranks or celebrated its praises, heroes, monarchs, and poets?

Thus it was that the pharmacy of ancient times was celebrated. In scanning the history of modern times, we shall not fail to find new claims to the esteem of the learned and to the gratitude of humanity.

ART. IV.—*Remarkable migrations of a Pin and Needle through the Body of a Young Lady.* By NAPOLEON B. ANDERSON, M.D., of Louisville, Ky.

On the 20th of April, 1849, Miss Catherine M——, æt. 19 years, in a fit of laughter, accidentally swallowed a large brass pin and a medium sized needle. No pain attended the passage of these bodies into the stomach, nor was any felt until after the expiration of about the third week, at which time a warm, pricking sensation was first felt in the cardiac orifice of the stomach, which position it maintained for the space of three months, when it gradually changed, and seated itself in the lower lobe of the left lung. In this situation it remained for some nine months, without any disturbance to the organ of respiration in which it was felt, with the exception of occasional cough and slight hemoptysis. During this period, the pain gradually moved to the glenoid cavity of the scapula, and was experienced at the insertion of the deltoid muscle, in which situation considerable pain was the result of elevation or rotation of the arm. From this point it moved to the arm pit, when the arm had to be carried horizontally, and no elevation, rotation, adduction, or abduction could be performed without excruciating pain; the inner part of the arm turning very black, from the infiltration, I suppose, of blood into the surrounding parts. Pressure upon the parts, produced no material change in coloration, nor was there any unusual amount of sensation or numbness in any part of the discolored portion, with the exception of the region in which these foreign bodies were situated. The arm remained in this condition, with no material changes, until December, 1850, when the pain and uneasiness moving from the arm-pit, towards the articulation of the ulna and radius with the humerus, settled in the belly of the biceps flexor muscle, forming there a dark spot the size

of a half dollar, and very sensitive to the touch. An emollient poultice was applied for twenty-four hours, when fluctuation indicated the use of the knife. A quantity of bloody pus was discharged, and the needle and pin were extracted from two different apertures, about half an inch apart. The pin was dark, but the needle was bright, and had undergone no material change. Alteratives were used, and in ten days from the extraction of the bodies, the lady had perfect use of her arm, and has continued to do so ever since.

During the period, from the swallowing of these substances until their removal, the constitution was not disturbed in the slightest degree, except the cough and hemoptysis spoken of; and this continued only as long as those articles were passing through the lungs, after which the symptoms disappeared. The lady underwent no treatment during their migration from the mouth to the arm, with the exception of a purge when she first swallowed the articles, and anodyne embrocations afterwards.

These pointed bodies appear to have traveled side by side over the entire route from the mouth to the point at which they were extracted, and must, in their course, have passed through the stomach, diaphragm, lung, pleura, among muscles and bloodvessels, before reaching the parts from which they were extracted. The points of each article presented at the incision made, and must, I suppose, have thus passed the entire distance.

July 8, 1851.

ART. V.—*Remarks on Dysentery.* By WM. KENNEY, M. D., of Millersburgh, Kentucky.

Without any wish to claim precedence for a favorite practice in any disease over that of other members of

the profession, I would respectfully submit the following remarks on Dysentery.

For some twenty years past, in the generality of diseases of this country, prevailing at whatever season, sooner or later, a characteristic irritability of the gastro-enteric system presents itself, demanding a modification of the previous plan of treatment. In the inflammations of the splanchnic cavities, in the form of fever, diarrhea, or dysentery, this is the prominent condition in the disease. It offers a barrier to the modes of practice in use with the older writers, especially to venesection, the sheet anchor of the profession in a former age. Being thus debarred the use of this potent remedy, the next in order is mercury with opiates, constituting a favorite combination, to be resorted to on the decline of disease.

Dysentery, according to my observation is, in its incipient stage, more or less marked by nausea and the vomiting of a muco-bilious matter, or a colored watery fluid, with a pale clay-colored diarrhea of a cream-like consistence, attended with much uneasiness and pain about the umbilicus. The nausea and vomiting measurably subsiding, the operations become more frequent, thin, and cider-like in character, with an increased amount of pain before and after each operation.

As the disease progresses, without much arterial excitement or nervous disturbance, it gradually or hurriedly runs into the form of a well developed dysentery. This stage attained, the tormina and tenesmus become extremely distressing, the disposition to stool is frequent and urgent, the evacuations are muco-sanguineous, muco-purulent, or sero-sanguineous, and more or less offensive to the smell.

A febrile movement now presents itself, varying from that of a mild form to one of much gravity and seriousness. The pulse rises from 100 to 120 in the minute, a tender and tympanitic state of the abdomen comes on,

superadded to which is a considerable amount of nervous disturbance, with pain in the head and back, aching of the extremities; the patient becoming restless and exhibiting a disposition to delirium during the height of the exacerbation, with paucity of urine.

The disease now fully matured, with all the phenomena incident to this class of affections, passes on to resolution, or ends in death. The chronic form rarely supervenes upon an acute attack, nor is the fatality so common as to entitle it to rank among the more malignant diseases of this section of country.

But to the treatment. The plan, then, which in my experience most speedily allays the pain and irritation, arrests the progress of the morbid action in the mucous surface of the bowels, and determines to the skin, is, if consulted early, during the disposition to nausea and vomiting, with evidence of a vitiated state of the contents of the stomach, to administer an infusion of chamomile flowers to promote emesis and rid the stomach of its offensive contents.

This effected, and the stomach quieted, I am in the habit of prescribing the following:

℞. S. morph., gr. ss;
Tannin, gr. j;
Ipecac., ää;
Nit. potas., grs. v.

This, in the early stage of the less violent forms of the disease, with a strict observance of the horizontal posture, generally effects a cure. But if not called until a distressing tormina and tenesmus have come on, with frequent disposition to stool, the discharges muco-sanguineous, or muco-purulent, with a tender and tympanitic state of the abdomen, fever, and much nervous disturbance, results so desirable are not to be expected; but the patient is still to be kept in the horizontal position, and to resist every effort at fecal evacuations.

This period in the disease reached, without a hope of its immediate termination, and with increased vascular action and a disturbed state of the nervous system more predominant, we would continue the prescription altered as follows:

℞. Sulph. morph., grs. iv;
Tannin, grs. vj;
Ipecac, grs. jx;
Nit. potas., ʒj;

to be divided into twelve parts, of which one is to be given every three or four hours, or after each operation, increasing or diminishing the proportion of morphia as the severity of the pain and symptoms may indicate.

The surface should be kept constantly bathed during fever; the face and head in cold water, to which might be added ice; the body and extremities in warm water, while we apply bags of scalded bran, or sacs of boiled corn to the abdomen.

For drinks, the patient may be allowed the moderate use of ice-water, and occasionally pellets of ice might be broken up and swallowed; but as a general thing, elm-water is the most preferable.

The situation of the patient somewhat improved, the operations diminished in frequency, and the tormina less distressing, the interval between the administration of the anti-dysenteric powder might be gradually prolonged; but should the tormina and tenesmus, with disposition to stool, continue, great relief would follow the administration of an anodyne enema, after every other operation, to which might be added, if the sanguineous character of the excretions required it, from five to ten or fifteen grains of acetate of lead in solution.

The dysenteric discharges once arrested, the necessity for laxatives rarely occurs under five or ten days, provided the anti-febrifuge and refreshing applications of the cold and warm baths are kept up. Should it how-

ever recur, an enema, blue lick water, or an effervescing draught of Seidlitz water, at intervals of a few hours, would abundantly suffice for that purpose.

When that irritable state of the bowels, so frequently aggravated by cathartics, is controlled, and the secretions remain suspended, blue mass in combination with pulv. Dov. at night, will produce a fine effect, and insure rest.

Convalescence fairly commenced, the patient's diet, hitherto of a fluid and unirritating kind, may be improved by the addition of soups and the more digestible of the tender meats, with some gentle stomachic to promote digestion and his recovery.

This course, faithfully pursued, has given us every reason to be gratified with its adoption, in uncomplicated cases of the disease, and the good results following its practice warrant us in recommending it to practitioners in whose limits dysentery may prevail.

July, 1851.

REVIEWS.

ART. VI.—*A Practical Treatise on the Diseases and Injuries of the Urinary Bladder, the Prostate Gland, and the Urethra. By* S. D. GROSS, M. D., Professor of Surgery in the University of Louisville, Member of the American Medical Association; author of Elements of Pathological Anatomy, etc. etc. With one hundred and six illustrations. Philadelphia: Blanchard & Lea. 1851. pp. 726. 8vo.

The bibliography of the diseases of the urinary organs, until the publication of the volume whose title stands at the head of this article, has been singularly and deplorably defective. When we consider the importance, both in a practical and pathological point of view, of the affections which have their seat in the urinary organs, this defect becomes a matter of much surprise. Fewer attempts have been made to compose systematic treatises on this subject than almost any other—certainly than any other of equal importance—in the whole range of medicine.

Soemmering, a German, who flourished during the last century, left a small volume of one hundred and forty or fifty pages on these diseases which remains, to this day, the only attempt at a systematic treatise on the subject in the German language. This work, besides being far too small to embrace one half the diseases to which these parts are subject, is chiefly a reproduction from the French, or, to speak of it in the mildest terms, is based upon French labors.

M. Civiale published, in 1837, the first volume of his work on "Diseases of the Genito-Urinary Organs." This was followed, four years after, by volume the second, and

this, in another year, by volume the third and last. The treatise of Civiale, while most admirable in some respects, is inexcusably deficient in others, and is, on the whole, we think, far inferior to some other and less pretending works published on the other side of the Channel. Good or bad, however, it is the best, and only original French work on the diseases in question. Never having been translated into English, it is inaccessible to the majority of American readers.

Willis, Coulson, and Sir Benjamin Brodie, are the three English authors who have written most extensively on this subject. Mr. Guthrie, of the Westminster Hospital, published, some years ago, the first volume of a work entitled the "Anatomy and Diseases of the Urinary and Sexual Organs," with the promise to follow it without much delay by a second part which was to contain those subjects—and they were many and important—omitted in the first. It is to be regretted that this distinguished surgeon has not yet fulfilled his promise, and it is to be hoped that he will not allow many years to elapse before doing so.

The work of Dr. Willis, of London, was rather more on the Urine than on the diseases of the Urinary Organs.

Coulson wrote a short treatise which is anything but systematic, and much behind the present state of the science.

The author to whom English readers have been most indebted for a description of these diseases and their treatment, is Sir Benjamin Brodie. This distinguished surgeon has made most valuable contributions on these subjects in his usual clear, forcible style. But, taken as a whole, his work on "Diseases of the Urinary Organs" does not meet the wants of the profession, especially in this country.

A monograph which should contain a full and comprehensive exposition of the nature, causes, symptoms, and

treatment of the diseases in question has, indeed, long been an acknowledged desideratum with the profession, and has now been supplied by the treatise of Dr. Gross.

The introduction to this work, which occupies fifty or sixty pages, is devoted to a description of the anatomy of the perineum, of the urinary bladder, of the prostate and urethra, and to an account of the urine, with its different varieties, sediments, changes in disease, &c.

In addition to the description usually contained in anatomical works, of the *superficial fascia* of the perineum, Dr. Gross has embodied the very important discoveries recently made by Dr. Buck, one of the surgeons to the New York Hospital. Dr. Buck has demonstrated by careful dissections, one of which Dr. Gross had an opportunity of witnessing, that the perineal fascia forms distinct sheaths for the perineal muscles, the spongy structure of the urethra, and the cavernous bodies of the penis. This fascia answers the same purpose for these bodies, this structure, and these muscles, that the fascia lata does for the muscles of the thigh. Forming a complete sheath to these parts, which serves to maintain them in their respective places, it also separates them from each other, and thereby limits their diseases. The arrangement, relations and connections of this membrane, render it evident, that urine effused in consequence of a rupture of the urethra, can travel only in one direction, namely, forward towards the scrotum, and upward towards the groin. The attachment of the membrane to the pelvic bones and the triangular ligament forbids its passage backwards round the anus and along the inside of the thighs. It occasionally happens, however, that the fluid breaks through this barrier and makes its way along the inside of the lower extremities. In one case, it is reported to have reached nearly as far down as the knee. But we cannot dwell longer on this portion of the work.

The bladder receives a due share of notice. The pros-

tate is described at length, and with great minuteness, and its anatomy is illustrated by a number of accurate and well executed cuts.

The urethra is divided into the usual portions, and is also illustrated by plates. In speaking of the first, or prostatic division of the urethra, Dr. Gross states that in most of his examinations, he has found "the urethra situated towards the superior part of the prostate, in a sort of gutter, covered merely by a thin layer of parenchymatous substance. Sometimes the tube runs through the centre of the gland, which thus forms a kind of hollow cylinder for it. Occasionally, again, though very rarely, the urethra occupies the inferior part of this organ, the greater volume, by far, lying upon its upper surface. When this arrangement obtains, the canal and the rectum approach each other much nearer than usual, in consequence of which the latter is in danger of being wounded in the operation for stone." Fortunately, however, this condition of the parts is, as has been stated, exceedingly rare; otherwise the bowel would more frequently be the subject of injury in this operation. In the adult, the direction of the prostatic portion of the urethra, in the erect position of the body, is obliquely downwards and forwards; but in the aged subject it is drawn down by the bas-fond of the bladder, and is, consequently, more horizontal. In childhood, owing to the fact that the bladder is in a great degree lodged in the abdomen, the prostatic portion of the urethra is nearly vertical. These facts are both interesting and important to the lithotomist.

The fourth and last chapter of the introduction is devoted to the Urine. The characters of this fluid in the normal state of the system, and the many changes which it undergoes in the various disorders of the body, are stated succinctly; but having been so often described we will not here detain the reader with an account of them.

We arrive now at "*Diseases of the Urinary Organs.*"

And first of diseases and injuries of the bladder. The author, very properly, gives a brief account of the *malformations* and *imperfections* of this viscus. Although the malformations of the bladder are seldom met with, and in a practical point of view, are not of much importance, they are sufficiently interesting to merit a passing notice. They are arranged under three heads: 1. Absence of the bladder: 2. Bilobation, or multiplication of the organ: 3. Extrophy, or congenital eversion.

The first defect is rare, and when observed, the ureters open at one of three places: Either into the vagina, the rectum, or the urethra. Haller makes mention of cases in which the ureters were inserted into the vagina. Richardson, in the Transactions of the Philosophical Society of London, has published the history of a youth who attained the age of seventeen years without ever having urinated by the penis. He passed all his water by the anus.

There are few cases on record in which the ureters open directly into the urethra. The body of Abraham Clef affords perhaps the best authenticated example of this *lusus naturae.*

The effect of disease has sometimes been to divide the bladder into two or more compartments. This defect has sometimes also been congenital. The most remarkable example of congenital malformation occurs in the writings of Molinetti. The individual, a female, had five bladders, five kidneys, and six ureters, of which two were inserted into the largest reservoir, while the remainder terminated each in one of the small sacs, which discharged their contents by special ducts into the main organs.

In a patient who had been subject to retention of urine, the bladder was found divided into two nearly equal sacs, the one situated behind the other, and communicating together by an openining of some size.

Our author very justly, we think, mistrusts most of the

cases of supernumerary bladders mentioned by the older anatomists.

Congenital inversion or extrophy, which "consists in the absence of the anterior wall of the bladder, and the protrusion of its posterior wall across an opening in the inferior part of the linea abba," is the most remarkable malformation of this organ. Happily it is the most rare. Dr. Gross has seen but one example of this monstrosity, a description of which he gives in the following words:—

"Joseph Head, nineteen years old, a native of Rhode Island, is five feet six inches high and well formed, but has never enjoyed robust health having had ten different attacks of bilious fever. His intelligence is very ordinary, and he is a painter by trade, but has never worked much at his business. He has a brother and a sister who are both sound and well formed. Walking is painful to him, from the pressure and friction of his pantaloons upon the tumor; he constanily keeps the part covered with a thick, soft compre-s, to imb be the urine, changing it five or six times a day. His bowels are habitually constipated. His body and limbs are well proportioned and well developed, but he has no beard.

"The bladder is situated just above the pubic symphysis, in the median line, where it forms a rounded, convex tumor, four inches in breadth by three inches and a quarter in height. The tumor is soft and elastic, has a red, raw appearance, bleeds easily when touched, and is tender and even painful on pressure. Its size is increased when the patient stands up, and diminished when he lies down. The upper, central part of the tumor is covered with skin, a sort of imperfect copy of the original; everywhere else, it is red and raw. The skin, at its periphery, especially on the left side, is somewhat puckered, and has the aspect of a cicatrice. The orifices of the ureters, indicated by a frequent oozing, or occasional jet of urine, are quite small, and one inch and three-eighths of an inch apart: the right is mammillated, and more prominent than the left. Between the tumor and the stunted penis a deep furrow exists, at the bottom of which are the

mouths of the ejaculatory ducts, separated by an interval five-eighths of an inch in width.

"The interval between the pubic bones is four inches, and appears to be occupied by a dense, elastic structure, probably fibro-ligamentous in its character. The bodies and symphysis of these bones are evidently wanting.

"The penis is imperforate, and consists of two rudimentary cavernous bodies. In its flacid condition, it is upwards of two inches in its transverse diameter, and ten lines in the antero-posterior; it has a prepuce, and a tolerably distinct frænum in the usual situation. The organ is flattened above, where it is in contact with the tumor. During erection, it increases to nearly double the ordinary size; the act, however, is unattended by any pleasurable sensation; on the contrary, it is always more or less painful, from the pressure which the distended organ exerts upon the tumor. A mucilaginous fluid, probably prostatic liquor, passes off involuntarily every day, and once or twice a week there are considerable seminal emissions, without any very agreeable feeling or emotion. The patient has at no time any amorous propensities.

"The scrotum is smaller than usual, and its surface is covered by a few straggling hairs. The spermatic vessels and ducts appear to be of the natural size and consistence. The testicles are well formed: the left hangs lower than the right. There is hernia on the right side, but the bowel does not descend into the scrotum.

"No umbilicus is perceptible; one must, undoubtedly, have existed, but at what point cannot now be determined. Possibly, the umbilical vessels, which naturally run along the sides of the bladder, in their course towards the linea alba, may have issued at the place of union of the abdominal and vesical parietes, and thus prevented the formation of a navel, properly so called.

"The groins are pretty thickly covered with hair, which extends unusually far outwards towards the spine of the ilium; it is of the ordinary length, and of the same color as that of the head."

Extrophy of the bladder is wholly incurable.

Wounds of the bladder are dismissed by most authors without ceremony, and yet they are by no means infre-

quent, and are invested with very great practical and pathological interest. The form of wounds of the bladder depends upon the kind of instrument with which they are inflicted. Thus they may be lacerated, punctured, incised, or gun-shot. In whatever manner inflicted, a wound may transfix the bladder or merely pierce one of its walls; two openings would result in the former case; in the latter, only one. The lesion may occur in front and below, where the organ is destitute of peritoneum, or at a point where covered by this investment.

The incision made in recto-vesical and supra-pubic operations, affords illustrations of *incised* wounds of the bladder. The trochar when introduced in cases where obstruction of the urethra makes it necessary to draw off the urine, furnishes an example of a punctured wound.

A few centuries ago all wounds of the bladder, however small and insignificant, were considered necessarily fatal within a short time after their occurrence. This, however, is far from being true. The fatality of these accidents depends very much upon the amount of the accompanying violence, the point, size, direction and number of the opening, the quantity of urine contained in the bladder at the time, &c. The opening being small, penetrating the cavity of the bladder obliquely, the viscus being at the time nearly or quite empty, escape of urine may be prevented, and the wound healed by the first intention. A wound affecting the body or fundus of the organ, inflicted upon a distended bladder, is more hazardous than one inflicted upon an empty bladder, and at its inferior part. Incised and punctured wounds are far more dangerous than gun-shot wounds and nearly always prove fatal. Mr. Colles states that gun-shot wounds of the bladder are not always mortal, and refers to a case in which a man recovered after having received a ball that went through the sciatic notch, and penetrated the cavity of the bladder, where it lodged,

and remained for twelve months, when it was removed. Writers mention very many cases in which the bladder has been penetrated by musket balls and the individuals have recovered.

The first effort of the surgeon, when called to treat a wounded bladder, is to prevent extravasation of urine; and secondly, the development of undue inflammation.

"Unfortunately the first of these accidents often takes place at the moment of the injury, and consequently before the surgeon has an opportunity of interfering. When the bladder is distended, it matters not where it is laid open, whether at a part invested by peritoneum or not, effusion of urine will be inevitable; the danger of the case will thus be increased, in an instant, an hundred fold. When the general cavity of the abdomen is penetrated, the contact of the fluid will in a few hours set up intense peritonitis, which no skill can possibly control. The disease proceeds in spite of the best directed efforts to combat it. This being the fact, the patient's only chance consists in preventing its occurrence. This is to be attempted by attention to position, and by the instant evacuation of the bladder. The patient should be placed almost semi-erect in bed, and the catheter, which should be of gumelastic, should be left in the bladder, where it is to be secured in the usual manner, to enable the urine to pass off as fast as it comes down from the ureters. In a word, the organ should be kept constantly empty and contracted for the first fifteen or twenty days, or until there is reason to conclude that the wound is closed, and all risk of infiltration over. The end of the instrument must not be permitted to become clogged, or to rise up in the bladder, otherwise the object for which it is employed will not be attained. Care should also be taken that it do not press or rub against the mucous membrane, and thereby excite pain, spasm, or irritation, rendering its presence uncomfortable, if not intolerable. Should the latter result, however, follow, the catheter must be withdrawn, and an attempt made to obviate the danger of distension by the frequent introduction of the instrument.

"The development of undue inflammation is to be prevented by the employment of antiphlogistic means. Fore-

most amongst these are general and local bleeding, calomel and opium, hot fomentations nd vesication of the abdomen. Anodynes must be given in full doses, both by the mouth and by the rectum, to allay pain and spasm of the bladder, induce sleep, and diminish the renal secretion. The drinks must be cooling and demulcent, the diet perfectly light and bland, and the bowels must be disturbed as little as possible during the first eight or ten days. No drastic purgatives are admissible. The best aperients are castor oil and sulphate of magnesia. Cathartic enemata must be avoided, on account of the pain and irritation which they produce by their pressure on the bladder. Abscesses, the result of urinous infiltration, are to be opened by early and free incisions.

"Nothing can be gained by an attempt to extract the foreign body, when the injury has been produced by fire-arms; for the very moment it is inflicted the urine escapes, and the bladder contracts upon itself so as to destroy the relations between the external and internal wounds. If the ball has fallen into the bladder, it may, if not too large, either pass off spontaneously, or be removed with the forceps; should it be otherwise, and severe symptoms be caused by its presence, it must be cut out through the perinæum by an operation similar to that of lithotomy. This may be done immediately or within a short period after the accident, if the ball has entered beneath the pubes, for the reason that the organ will not only be freed thereby of a disagreeable intruder, but also because there will be less risk of urinous infiltration.

"When the bladder has been transfixed, or wounded through the peritoneum, the accident, as all experience proves, inevitably terminates fatally. In view of this event, would it be proper to make an incision through the linea alba, and sponge out the extravasated fluid? My opinion is that it would, and that it would be much more creditable to a surgeon to perform such an operation, provided it can be done immediately after the injury has been received, than to stand by, and see his patient perish from the effects of peritonitis. The only difficulty in the case might be the uncertainty of the abdominal effusion."

Laceration of the bladder is the subject next discussed. Although this accident is generally immediately fatal, our

author has thought it of sufficient importance to describe its causes, syptoms, and treatment, which he has done with much accuracy.

Cystitis, in the acute form, is seldom met with; Dr. Gross has seen comparatively few cases of the complaint. Chronic cystitis is, on the contrary, by no means infrequent, and gives rise to much suffering, which often continues for months and years, and finally destroys life. Increased vascularity, deposits of lymph, loss of transparency, softening, and alteration of the natural secretion, are the more important anatomical characters of this affection. Calculous diseases, traumatic lesions of the bladder, stricture of the urethra, retention of urine, enlargement of the prostate gland, and violent exercise on horseback, are among the many and most frequent causes of acute inflammation of the bladder.

The *symptoms* of cystitis are sufficiently well known to be omitted in this place. The particular seat of the morbid action, however, affords our author an opportunity of speaking of its differential diagnosis, in which, we may remark, he has excelled all preceding writers on the subject. When the inflammation is situated at the bas-fond, the rectum usually sympathizes, and there is straining and tenesmus. When the neck of the bladder is the seat of the disease, there is obstinate retention of the urine, accompanied by excessive pain, and a sense of weight in the anus and perineum, with a constant desire to urinate, and severe burning from one extremity of the urethra to the other. The desire to micturate is less frequent, and the pain about the neck of the bladder less severe, when the inflammation attacks the anterior wall of the bladder. There is also, in addition, a feeling of constriction in the hypogastric region, with tenderness on pressure and percussion; the patient generally lies on his side, with the knees partially flexed, in order to relieve the tension of the abdominal walls.

The progress and termination are greatly modified both by its cause and seat. The traumatic form of the disease is more formidable than the idiopathic; the complication with enlargement of the prostate gland, or organic change of the kidneys, or stricture of the urethra, militates greatly against recovery.

The treatment of cystitis does not differ sufficiently from that required in inflammation of other parts of the body, to require a special description.

As an idiopathic affection, *fibrinous exudation* of the bladder is seldom met with; as the consequence of external injury, or direct irritation of the mucous membrane, it is not uncommon. The extraction of a stone is sometimes rendered very difficult—as we ourselves, on the occasion of our first operation of lithotomy, experienced—by this exudation attaching the calculus to the walls of the bladder. It is through the agency of fibrin that the various foreign bodies, which occasionally find their way into the bladder, are encysted. When this substance is not discharged with the same rapidity with which it is secreted, it occasionally gives rise to retention of urine, by blocking up the urethra, and when it extends upwards into the ureters, it dams up the urine in the kidneys.

The presence of some of the exuded matter in the urine, is the only symptom, and this, certainly, is far from being a sufficient one, to enable us to distinguish this form of inflammation from ordinary cystitis. Internal remedies appear to exert no controlling influence over this secretion. Injections with nitrate of silver may prevent its effusion, which, if its existence in very great quantities can be positively ascertained, should be evacuated by the "high operation."

Suppuration, Abscess, Gangrene and Ulceration of the Bladder, are discussed in the remaining sections of this chapter. These are affections which are seldom encoun-

tered, and are in almost all cases incurable. Ulceration is amongst the very rarest diseases to which this organ is subject. The structure, situation, and functions of the bladder, and nature of the urine are all opposed in an eminent degree to the reparation of ulcers of this viscus. And, yet, this process sometimes takes place; that it is very rare, is attested by daily experience. Those who believe that ulcers of this organ do occasionally heal, support their opinion first, by cases of this disease in which the ulcers have been found incrusted with coagulable lymph; and secondly, by instances in which the mucous membrane has exhibited a puckered and contracted appearance, strongly indicative of complete cicatrization. Finally, analogy, or what is continually observed to occur in other portions of the mucous system—as in the alimentary canal, for instance, or the mouth, or vagina, or uterus—affords very strong, if not conclusive proof of the possibility of this occurrence. Still, as we have remarked, it is very infrequent.

The usual seat of ulceration is the bas-fond and neck of the bladder. Mechanical causes such as calculous concretions, or sandy deposits and tubercular disease; organic lesion of the kidney, paralysis of the bladder, injury of the spinal cord—which three last induce changes in the composition of the urine—cystitis, dependent on enlargement of the prostate, and stricture of the urethra, and chronic inflammation of long standing, are the conditions to which ulceration of the bladder is most frequently to be traced.

At the commencement of the disease, the symptoms of ulcerated bladder are not materially different from those observed in subacute, or chronic inflammation. Nor indeed are they by any means always characteristic at a later period. Such, in fact, is the obscurity which envelops this disease, that it is often only by the aid of the scalpel that we are enabled to determine its existence.

Frequently the most experieneed surgeons have been entirely baffled in its diagnosis. Stone, cystitis, and catarh —diseases on which, as we have remarked, it often depends—are the affections with which it is most liable to be confounded.

"In stone, the pain is most severe immediately after passing the urine, and is generally much aggravated by rough exercise, the urine is also more frequently bloody, there is less irritability of the urethra, and the intervals between the paroxysms are longer than in ulceration."

The guarded and gentle use of the sound—in order to avoid an aggravation of the local inflammation if the case be one of ulceration,—will greatly facilitate the diagnosis.

It will be distinguished from cystitis "by its obstinate persistence, by the greater extent and violence of the local distress, by the incessant desire to void the urine, which is never suffered to accumulate, by the more severe burnings or scaldings along the urethra, and, lastly, by the presence of pus in the urine, and in the more aggravated forms of the complaint, the absence of mucus."

The characteristic symptom of catarrh, the turbid urine with its ammoniacal odor, the presence of much less local and constitutional distress, the complete intermission of the vesical disturbance, added to the fact that the calls to make water are not so frequent, and the sensibility of the urethra not so great, will usually enable the practitioner to distinguish this affection from ulceration of the bladder.

A symptom which is never furnished by either catarrh, simple cystitis, or calculous disease, is a discharge of the debris of the mucous membrane—a circumstance occasionally observed during the progress of ulceration.

The *treatment*—which is general and local—is conduct-

ed upon well known principles and is admirably set forth under the head of cystitis.

Dr. Gross closes this portion of his work with the detail of three cases of ulceration of the bladder copied from different sources. Since their publication his practice has afforded an interesting example of this affection which had its origin in tubercular disease. We had intended incorporating a description of this case in the present article, but as Dr. Gross purposes giving an account of it in an early number of this Journal, we leave it to his abler hands.

Chronic lesions of the Bladder are next introduced to our notice. *Catarrh and Hypertrophy* are treated of in section first.

Cystorrhea is generally a symptom merely of a more serious disease, and consists of an excessive secretion of white, glairy mucus. Our author discards the division of cystorrhea into the acute and chronic varieties, and supports this step by referring to the fact—and it is one—that the former affection does not differ in any respect from ordinary acute cystitis.

Cystorrhea is a disease almost peculiar to advanced life, and is very seldom seen before the forty-fifth or fiftieth year. Dr. Gross has never met with it before puberty except as an attendant upon stone.

The causes of cystorrhea are in many respects identical with those of cystitis and ulceration of the bladder. Once established, it is readily reproduced or aggravated by any of the usual causes of inflammation, and particularly of inflammation of the bladder.

The diagnosis of this disease is never difficult. "Its characteristic symptom is an inordinate discharge of mucus, dependent upon chronic or subacute inflammation of the lining membrane, and accompanied with frequent, painful, and difficult micturition. Almost the only affection with which it is liable to be confounded is seminal

emission; but this can only happen when the seminal fluid flows into the bladder, and mixes with the urine, in consequence of a stricture of the urethra, or enlargement of the prostate gland. The distinction is, that in catarrh the discharge is always greater, more constant, and also more ropy, tenacious, and offensive; the local suffering is always more severe, and there is a more frequent desire to urinate. In seminal disease, the matter is voided in small quantity, and at remote intervals; it has a peculiar odor, is of light color, and is insoluble in the water, in which it floats about in shreds. When there is any doubt, the best way is to submit a few drops of the suspected fluid to microscopical examination. If it be semen, it will be found to consist of small oblong bodies, with delicate tapering tails. From gonorrhea it is readily distinguished by the character of the discharge, the absence of urethritis, and the history of the case. Its connexion with stone can only be determined by sounding. In suppuration of the bladder, the discharge is of a yellowish color, globular in its character, and specifically heavier than in catarrh."

In the treatment of no disease of the bladder is it more essential than in catarrh, to determine the nature of the exciting cause; for in none are the remedies more various or more opposite in their qualities and effects. An acquaintance with the cause at once opens up in this, as in the analogous diseases, the proper plan to be pursued. In fact, the probabilities of cure in nearly all cases are governed by the period at which we remove the exciting cause, especially when this cause offers an impediment to the free discharge of the urine.

Antiphlogistics, in the form of the general and local abstraction of blood, and purgatives—carefully abstaining from those which tend to irritate the rectum,—the warm bath, warm enemata, warm fomentations, demulcent drinks, &c., are required in all cases attended with violent pain and frequent micturition, though there may be no constitutional disturbance. With these remedies we will sometimes succeed in subjugating the more distressing

symptoms in the course of a very short time. After this has been done, the remedy which is regarded by Dr. Gross as affording the greatest relief to the patient, is the balsam of copaiba, administered three or four times in the twenty-four hours, in doses not exceeding ten, fifteen or twenty drops. When exhibited in large quantities, instead of ameliorating the condition of things, it serves to increase the urinary irritation.

Our author thinks well of the terebinthinate preparations—of which he esteems the Chian turpentine the best—used in small doses, in combination with extract of henbane, &c. From the *pareira brava* and *buchu*—both articles highly extolled in the treatment of cystorrhea—he has never derived much advantage. The former gives rise to nausea and other disagreeable effects, without appearing to exert any special influence upon the urinary apparatus. The buchu is less irritating to the stomach than the pareira brava, but cannot alone remove the morbid condition of the mucous membrane, on which the discharge depends. It may, occasionally, be employed with benefit, when combined with other remedies. The ground laurel or *epigea repens*, may sometimes answer a good purpose. The use of *uva ursi* is frequently followed by the best effects. Dr. Gross has found it particularly serviceable in cases attended with excessive morbid sensibility of the neck of the bladder. He thinks it may be advantageously combined with buchu; and, in the class of cases just mentioned, with carbonate of soda or potash.

These several articles are usually employed with better success in combination than alone. The combination to which Dr. Gross is most partial is that of buchu, uva ursi, and cubebs, in the form of tincture, given several times a day, in conjunction with a small quantity of bicarbonate of soda. In cases of cystorrhea, requiring a tonic, the muriated tincture of iron—which evidently exerts a

direct influence upon the urinary organs—is called for. Colchicum is indicated when the patient is of the rheumatic or gouty diathesis. Our author has seen happy results follow the usé of benzoic acid, when every thing else had failed. He generally exhibits it in union with copaiba, and has known it to act like a charm.

Valuable therapeutic indications are drawn from the condition of the urine, which should always be subjected to analysis. Thus, if this fluid be found acid, the carbonated alkalis will be serviceable. If, on the contrary, the urine be alkaline, the mineral acids are indicated. Anodynes are indispensable, and counter-irritation in the form of a seton, or an issue applied to the supra-pubic region or perineum, is beneficial in the treatment of cystorrhea. The tendency of cantharides to affect the neck of the bladder renders the use of blisters questionable.

Cystorrhea has been much treated within the past few years, by irrigation of the bladder. It seems particularly adapted to those cases which are attended with atony of the muscular fibres. Various medicated injections are sometimes introduced into the bladder for the purpose of acting directly upon the inflamed surface.

Our author has used cauterization—which is so highly recommended by Civiale—in several instances, but without any good results.

When all other remedies have proved inefficient, Mr. Guthrie, of London, recommends that an incision be made into the neck of the bladder, similar to that made in the lateral operation for stone, for the purpose of allowing the mucous secretion to escape as rapidly as it takes place, and, thereby, insure comparative repose to the organ. The principle of the operation is identical with that performed for anal fissures, and fistula. We guard on the one hand against the too speedy closure of the wound, and have a care, on the other, lest it become fistulous. Dr. Parker, of New York, was the first to per-

form this operation. The case terminated fatally, not, however, until after the expiration of a month, during the greater part of which period, the condition of the patient was greatly improved, and indeed gave rise, at one time, to hopes of his recovery. The mucous surface of the bladder was found studded with numerous miliary tubercles; the muscular coat was considerably hypertrophied. The right kidney was filled with softened tubercular matter. "Both lungs contained tubercles at their summits, and in the left there was a small cavity." Dr. Gross was present at the operation, and says that he should not hesitate to resort to it whenever a favorable opportunity offered. He regards it as "particularly applicable to that form of cystorrhea in which there is marked hypertrophy of the prostate gland, and muscular coat of the bladder."

Bar-like ridge of the neck of the bladder, is a peculiar form of hypertrophy sometimes met with, particularly in old subjects. It is the result of causes which produce obstruction to the evacuation of the urine, and consequent retention of this fluid in the bladder. The statement of the causes of this disease is suggestive of its symptoms, which, it need hardly be said, are the same as those which indicate the existence of hypertrophy of the neighboring structures, with mechanical obstruction to the flow of urine. This circumstance gives rise to the difficulty which is experienced in the diagnosis of the lesion. Nearly always coexisting either as cause or effect with stricture of the urethra, chronic enlargement of the prostate gland, general hypertrophy of the bladder, all of which present the phenomena of cystorrhea, the rational signs of this affection are comparatively of little assistance in the diagnosis. The more valuable diagnostic symptoms are furnished by physical exploration, performed with the finger and catheter. If the catheter do not meet with an obstacle in the urethra, if there be no stone

and no enlargement of the prostate, the instrument will pass as low down as the orifice of the bladder, where, if there be this ridge, or artificial dam, it will either be completely arrested, or advance with difficulty. "If the finger be now introduced into the rectum, and carried up as high as possible, the point may, if the prostate is nearly of the natural bulk, be hooked round its posterior extremity, and be thus brought directly opposite the bar, and consequently, between it and the back of the instrument."

The treatment is rather palliative than curative. The means recommended in cystorrhea, which forms its most prominent symptom, are also adapted to this disease. The catheter is in constant requisition, being used at regular intervals, or retained in the organ permanently, or removed occasionally for purposes of cleanliness. Scarification of the bar has been proposed by Mr. Guthrie. When the disease proves intractable, our author coincides with Mr. Guthrie in the opinion, that we should afford the patient the benefit of an operation similar to that which is practised for the removal of stone. This procedure would allow of the involuntary escape of the urine and mucus, and if the wound were kept open a sufficient length of time, a new and more healthy action would be almost sure to follow.

Sacculation of the Bladder—a striking representation of which is furnished in an original sketch by our author—is the subject of the remaining section of this chapter.

Of this affection we have only room to remark, that Dr. Gross regards it as much more frequent than is generally supposed—that it is the result of mechanical obstruction, situated either in the urethra, or at the neck of the bladder, giving rise to difficulty in voiding the urine; this produces hypertrophy of the muscular tunic, the fibres of which gradually separate from each other, thereby removing, in certain situations, the resistance of this

tunic, and allowing the mucous membrane—which is pressed upon on every side by the distended bladder—readily to enter the interstices between the fibres; and, the exciting cause continuing, gradually to project beyond the level of the peritoneal surface. The only symptom of encysted bladder which is possessed of diagnostic value is that of a movable, elastic, circumscribed and fluctuating tumor situated in the hypogastric region. The diagnosis is rendered much more certain if the tumor rises and falls with the quantity of urine contained in the bladder, and should the swelling disappear under the catheter "which may sometimes, by a happy hit, be passed into the abnormal pouch."

The prognosis of this disease is highly unfavorable—the treatment wholly palliative.

We come now to a very interesting portion of the work, that devoted to *Nervous affections.* Irritability, Neuralgia, and Paralysis, are the three nervous affections of the bladder treated of by our author. The first of these diseases is often one of the most difficult of cure with which the practitioner meets. Frequent micturition is its most prominent symptom. This is generally accompanied with tenesmus, a sense of scalding in the urethra, more or less straining, and pain at the neck of the bladder. Occurring at any period of life, and in all temperaments, our author has most frequently met with it in children, and in persons about the age of puberty, and in individuals who are naturally of a nervous, irritable disposition, or prone to attacks of gout and rheumatism. The disease is particularly intractable in scrofulous and weakly habits. Children are subject to a variety of this affection, known generally under the name of incontinence of urine. Those portions of the urinary apparatus which are distinguished for their sensibility both in health and disease—the prostatic portion of the urethra, and neck of the bladder—are the localities to which the

disease is most partial. The urine may or may not be altered in its quantity and quality. Generally, it is high colored, loaded with a whitish or grayish mucus, and acid. The stream of water may be natural, spiral, forked, or twisted, strong or feeble, full, or small, discharged in jets, or voided in drops. In most cases of this affection occurring in young men, there is a tendency to erections and seminal emissions. When irritability of the bladder is confirmed and exists in an aggravated form, the general health is gradually impaired; the mind becomes gloomy and despondent; flatulence, colicky pains, constipation, acid eructations, and loss of appetite, combine to harrass and wear away the patient.

Irritability of the bladder depends upon a variety of causes, general and local. All diseases of the urinary apparatus are frequent and well known causes of this disease. One of the most familiar and common causes is gonorrhea. An altered state of the urine is another fruitful source of this malady. Over-doses of diuretics act as irritants of the bladder. The effects of cantharides are well known. Our author has seen nitrate of potash produce intense irritability of the bladder. We have ourselves known a similar result in several cases of rheumatism in which we exhibited this remedy. All drinks, fruits, and vegetables which have a special tendency to develop acid in the urine, with a morbid sensibility of the mucous membrane, may induce this condition of things. Venereal excesses, derangement of the digestive apparatus, lesion of the brain and spinal cord, disease of the alimentary canal and pelvic viscera, disorder of the genital organs, exposure to heat and cold, and general debility, are all exciting causes of this affection.

The idiopathic form of the disease never of itself proving fatal, but little opportunity has been afforded for ascertaining its pathology. So far as we know, or, more strictly speaking, so far as we are justified in concluding,

the complaint consists in an exaltation of the nervous sensibility of the mucous membrane. It not unfrequently happens that the irritability is purely sympathetic, depending upon lesion of some neighboring organ, and, in some instances, of a remote organ.

Of course when the disease is produced by a local cause, the anatomical changes are more distinct, and consist of "evidences of inflammation or congestion of the lining membrane, and hypertrophy of the muscular fibres, with alteration of the secretions, and, in some instances, slight deposits of lymph."

The prognosis is entirely dependent upon the nature of the cause, The idiopathic form of the complaint, though obstinate, is, generally, amenable to treatment. When occurring in scrofulous and feeble constitutions, the disease is always intractable, and sometimes irremediable. As may be supposed, when the disease is referable to local causes, and these are of a curable nature, speedy relief may be safely promised. Under opposite circumstances, we anticipate different results.

A knowledge of the cause, so essential indeed in the treatment of even the simplest disorder, is of the first importance in the treatment of this affection. The cause of the disease being known, it is an easy task to distinguish between the cases that are curable and those which are beyond the control of medicine, and to choose from the many remedies possessed by our art for the removal of this affection, those which are adapted to one or another of its forms. Vesical irritability dependent upon stone, or stricture, or hypertrophy of the prostate; vesical irritability dependent upon congestion or inflammation, an altered state of the urine, the improper employment of diuretics, worms, &c., is an affection, the treatment of which is, at once, suggested by its cause. Organic disease of the kidney, ureter, bladder, ovary and rectum, &c., give rise to irritability of the bladder

which is incurable. Our author has found the extract of belladonna administered either internally or by external application, to be exceedingly valuable, especially in that form of the complaint which is attended with neuralgic symptoms, or sharp, darting, and shooting pains in the region of the bladder and pelvis. He sometimes uses an ointment of belladonna and strychnine, which is applied to the perineum, sacrum, and lower part of the abdomen. In the irritation of the bladder in young children and hysterical girls, Dr. Gross thinks favorably of the tincture of cantharides. The balsam of copaiba is indicated in those cases which depend upon extension of gonorrheal inflammation, disease of the kidney and vesical catarrh. Dr. Gross places a very different estimate upon buchu and pareira brava from that with which they are spoken of by Brodie, Coulson, and others. "He cannot recall a solitary instance in which they seemed to afford any permanent benefit." His opinion of cubebs is no higher.

Next follows *Neuralgia* of the bladder. From the small space devoted to this subject in other works on the urinary organs, one would be led to conclude that it is an affection seldom met with and but little understood by their authors. So little indeed has this disease been understood, that more than once the operation of lithotomy has been performed for its removal. The late distinguished Dr. Parrish, of Philadelphia, relates a case in which he and the different surgeons in the Pennsylvania Hospital mistook neuralgia of the bladder for vesical calculus. We have ourselves known the same mistake to be made in two cases in this city, and in a case in Tennessee.

The symptoms of this disease, especially in its early stages, are so vague and ill-defined that even the most experienced practitioner will often be in doubt as to their cause; and, on the other hand, when the attacks are severe, they bear the closest resemblance to the paroxysms

produced by calculous concretions. The disease is generally paroxysmal in its character. At first the paroxysms recur only at long intervals, and consist merely of a sense of uneasiness in the perineal region, accompanied by a sharp, darting, or tingling pain. Gradually, the attacks become more frequent and more severe, and last from two to six hours, often giving rise to the most intense suffering. During the intermissions, the patient feels comparatively well. The disease often assumes the quotidian type, and generally comes on in the evening or towards morning. Sometimes, however, the attacks have been known to recur twice in the twenty-four hours. However violent or protracted, it is seldom accompanied by fever. Its periodicity, the sharp, darting, and lancinating pains, the *ardor urinæ*, the frequent, urgent, and difficult micturition, and the numbness of the perineum, scrotum, groins, and thighs, are, perhaps, the most important diagnostic signs.

Neuralgia of the bladder occurs, for the most part, in the same class of individuals who are subject to the same malady in other regions of the body; that is to say, in persons of a nervous temperament; and from what we know of this malady, as it occurs in other parts of the body, our author infers that malaria is often a principal, if not the only cause. He attended an elderly gentleman who "was subject to neuralgic attacks of the bladder and right knee, which generally lasted eight or ten days at a time, then disappeared and recurred about once every three months. In early life he had been severely affected with rheumatism, and a short time before the vesical neuralgia came on, he had labored under intermittent fever, which left him with an enlarged and indurated state of the spleen."

The pathology of this disease is unknown. It is singularly intractable, and often resists for weeks, or even months, the best directed treatment; "on the other hand,

instances occasionally occur which disappear almost as suddenly as they come on. This is especially the case when the disease has a miasmatic origin, or when it supervenes upon intermittent fever."

The causes of this disease are generally so obscure and inappreciable, and the treatment so entirely regulated by a knowledge of them, that its management is in almost all instances difficult, and often requires the employment of various measures before being finally successful. Our author opposes it with the same remedies which are used for the relief of neuralgia occurring in other parts of the body. "When the disease is connected with an inflammatory state of the system, as it is occasionally found to be, prompt and efficient blood-letting is the remedy upon which, in the commencement, our hopes of success must be mainly placed." Of the utility of local abstractions of blood, our author does not think favorably. He esteems purgatives—of which he thinks the mercurials the best—of much value in this affection, "especially in that variety of it dependent upon a miasmatic origin, constipation of the bowels, or deranged menstrual action." While he thinks that in those cases which are unaccompanied with inflammation or organic disease of the stomach or bowels much advantage may be derived from the judicious use of carbonate of iron, he gives the preference to quinine and arsenic, not only when the neuralgia is seated in the urinary bladder, but also in other parts of the body. When by the lancet, purgatives, and quinine, the intensity of the disease has been mitigated, Dr. Gross thinks arsenic, strychnine, and aconite, in union with opium, the best medicines to eradicate it.

The formula which Dr. Gross has been in the habit of using for many years past, both in this and other forms of neuralgia, and of which he speaks in the highest terms, is the following:

℞. Acid. arseniosi gr. ij.
Strychninæ gr. j.
Ext. aconiti gr. viij.
Pulv. opii gr. v.—M. optim. div. in pil xvj. One pill every six hours.

If they induce nausea, they are to be given less frequently—attention to this point he regards as a matter of paramount importance. They should be omitted at the expiration of every seven or ten days in order to allow the stomach a short recess, when they should be resumed, and taken as before. "Administered with these precautions, arsenic, &c., seldom fail to produce a most favorable impression, and are often, of themselves sufficient to effect a cure." Our author regards Fowler's solution of arsenic as much inferior to arsenic in substance. He exhibits narcotics in full and sustained doses, having previously cleared out the bowels and restored the secretions, and alludes to cases in which radical cures were effected by the protracted exhibition of this class of remedies. Emetics are indicated, particularly when there is associate gastric and biliary disorder. The warm bath, fomentations, the application of steam; colchicum in the gouty and rheumatic habit, and injections of acetate of lead, &c., are mentioned favorably. He has seen so little benefit derived from the introduction of bougies into the bladder—as recommended by M. Civiale—that he has entirely abandoned this mode of treatment. He used the actual cautery on one occasion, but without good effects. Our author completes this section of the chapter on nervous diseases by the detail of four cases of vesical neuralgia, which we much regret our limits forbid us to ext act.

Paralysis of the bladder occupies the remaining section of the chapter, and is treated of at length and in a masterly manner. We have already, however, consumed so much space by our remarks and have so much yet before us which is of even greater interest than any of the many

subjects to which we have yet alluded, that we must content ourselves with a mere synopsis of the teachings of our author on this disease.

Paralysis of the bladder is either partial or complete, essential or symptomatic. External injury, inflammation, disease or injury of the cerebro-spinal axis, loss of tone of the general system, over-distention of the muscular fibres, and old age are its principal causes. Whether dependent upon one of these causes or another, the symptoms which attend it are generally unmistakable. Its characteristic symptom is complete retention of urine. The walls of the bladder are distended by the accumulated fluid, and the organ forms a fluctuating ovoidal tumor in the hypogastric region, which ascends sometimes as high as the umbilicus. "The prognosis of vesical paralysis can be correctly estimated only by an attentive consideration of its causes." The success and also the mode of treatment hinges upon the influences by which the disease has been developed and sustained. To draw off the urine, and restore the tone of the muscular fibres of the affected organ, are the two important indications to be fulfilled in every case. The use of the catheter is sufficient for the first. It is advisable, in some cases, to allow the catheter to remain—the water being permitted to flow off every hour or two—in others, again, it should be introduced only when necessary. The former practice is particularly useful when there is a frequent desire to urinate, attended with pain and spasm of the neck of the bladder. The sudden removal of the stimulus of distention may induce severe depression. Dr. G. has known instances in which it has proved fatal. His practice, when the accumulation is very great, is not only to allow a small quantity of urine to remain, but to support the parts precisely as after tapping in ascites, &c.

To impart tone to the bladder, or, in other words, to meet the second indication, will require a very varied

treatment, governed, as we have remarked, by the cause of the disease. The use of emetics and cathartics is nearly always followed by good results, especially where the paralysis occurs coetaneously with disorder of the digestive organs and torpor of the general system. The ground being properly prepared, we may resort, with much confidence, to a class of remedies—at the head of which we place strychnine, arnica, and cantharides—which are calculated to produce a direct impression upon the nervous system, if not upon the bladder itself. They are indicated in the inflammatory form of the affection. Our author thinks highly of arnica in that form of paralysis which occurs as one of the *sequelæ* of masturbation, typhoid, and other fevers. Its virtues are due to its stimulating qualities, and it is, consequently, applicable to cases which are the result of general debility. Dr. Gross has not had much experience in the employment of the ergot of rye, but has never seen it produce good effects. The inflammatory form of the disease is to be met by antiphlogistics. Counter-irritation he regards as a useful auxiliary, and that form, excited by a succession of blisters, will be likely to prove serviceable in every species of paralysis except that just mentioned. The cold douche is a potent remedy. Dr. Gross has seen excellent results ensue from injections into the rectum with strychnine. He thinks it not improbable that this and other analogous remedies might be beneficially introduced, in weak solutions, into the bladder.

Heterologous formations of the bladder—embracing scirrhus, encephaloid, tubercular disease, with an allusion to colloid, and melanosis—form the subject of chapter sixth.

Our author reports an exceedingly interesting case of scirrhus of the bladder which occurred in his own practice, and another, for the particulars of which he is indebted to Dr. Church, of the New York Hospital. In the

section devoted to encephaloid, he details eight cases of this disease obtained from different sources.

The records of medical science contain no well-authenticated instance of either colloid or melanosis of the bladder.

Tubercular disease of the bladder is occasionally met with. Dr. Gross alludes to a single case furnished by his own practice. Since the publication of his work, one other case has fallen under his observation, reference to which has been made elsewhere. It need hardly be remarked that tubercular disease of the bladder reveals itself by no pathognomonic or even characteristic symptoms. When the deposit exists in a crude state, the symptoms have been known to simulate those of stone. Dupuytren once committed the error of cutting a little boy when he was the subject of tubercles merely.

Polypous, fungous, erectile, and other morbid growths of the bladder, form the subjects of chapter seventh.

Dr. Gross makes mention of a number of cases of this class of affections, occurring in the writings of others. He has seen none himself.

The exciting causes and diagnostic characters of these morbid growths are unknown. Internal remedies exert no influence in arresting or modifying their growth or development. "Whenever, in any manner, their real character can be ascertained, the bladder should be laid open, as in the common operation of cystotomy, and the morbid growth removed with a pair of probe-pointed scissors, curved on the flat." The disease being rarely, if ever, of a malignant character, and, consequently, not liable to reproduction, success would probably attend the procedure, provided the subsequent inflammation, which would generally be considerable, could be controlled.

Chapters eight, nine, ten, eleven, and twelve, treat of *worms in the bladder, serous cysts, and hydatids, fetal remains, hair, and air in the bladder.*

Next follows, in chapter thirteenth, *Hemorrhage* of the bladder. This affection is idiopathic and traumatic. The first is infrequent, and occurs in anemic conditions of the system, as a consequence of typhoid fever, small-pox, &c.

The pathology of the disease varies with its cause. The treatment is conducted with due regard to the nature of the exciting cause. It is both general and local. It sometimes happens that the blood, which is poured out in vesical hemorrhage, is not dissolved by the urine, and conducted off by the natural channel, but coagulates, and accumulating, distends the bladder. A hard, firm tumor above the pubes, a complete retention of urine, attended by extreme distress, &c., are the symptoms. Should the simpler means—among which we may enumerate the introduction of the catheter, and injections of tepid water and acetic acid—fail, and the symptoms are so urgent as not to allow further delay, resort must be had to the operation of opening the bladder. When practicable, the lateral method should always be preferred, both on account of the facility of its execution, and the more dependent situation of the aperture.

Retention of Urine forms the subject of chapter fourteenth. The symptoms of this disease are usually characteristic. Its causes and progress are sufficiently well known, but notwithstanding, numerous cases are recorded, in which egregious mistakes were made as to its diagnosis. Dropsy of the peritoneal cavity is the affection with which it is most liable to be confounded. The existence of a hard, pyriform, circumscribed, fluctuating tumor, tender on pressure, fixed, corresponding with the mesian line, and steadily increasing in size, with the general and other local symptoms, are sufficient to enable the practitioner to distinguish this from ascites.

The treatment of retention of urine, is by the catheter. The same precaution which was suggested when speaking of the use of the catheter in paralysis of the bladder,

is to be observed in the present instance. The five principal causes of retention of urine are, mechanical obstruction, paralysis, spasm, inflammation, and pelvic tumors—the study of these, with the treatment adapted to each, consumes the remaining portion of this section; and though very instructive, we must hasten on.

Next follows some very practical and judicious remarks upon catheterism, and puncture of the bladder. Our author mentions several very interesting cases in which he thought, at one time, that he would be obliged to resort to the latter operation, but succeeded in overcoming the difficulty by the use of general means and the catheter. He describes the several methods in vogue of puncturing the bladder, and alludes to a singular instance in which the puncture—made in the supra-pubic region—after having been perfectly healed, re-opened after a lapse of fourteen years.

Incontinence of Urine, and Hernia of the Bladder, are the remaining subjects until we reach Urinary deposits, and Stone in the bladder, which will occupy the principal part of our next article.

Incontinence of urine may be complete or partial, permanent or temporary. While it may depend upon a great variety of causes, the most prominent are referable to external injury, or to inflammation, spasm, paralysis, or morbid sensibility of the bladder, or of this organ and the urethra.

The symptoms of this affection require no description. The treatment is regulated by the cause. When the disease is irremediable, it only remains for the poor patient to wear a urinal, two cuts of which are given.

Hernia of the Bladder, though uncommon, is of great practical interest. The vaginal region is the most common seat of the protusion. The inguinal and femoral regions are also subject to it. When occurring in the latter situations, the treatment does not differ from that of in-

testinal hernia. Vaginal cystocele is treated by the pessary, cold, astringent injections into the bladder, the frequent use of the catheter, and rest in the recumbent posture.

The diagnosis of cystocele is given by our author at length, and with great clearness. Our limits, however, forbid us delaying longer upon this portion of the work.

D. W. Y.

ART. VII. — *Description of fifteen new Species of Crinoidea from the Sub-Carboniferous Limestone of Iowa, collected during the United States Geological Survey of Iowa, Wisconsin, and Minnesota, in the years* 1848–'9. By DAVID D. OWEN, M.D., and B. F. SHUMARD, M. D. Journal of the Academy of Natural Sciences of Philadelphia. New Series. Vol. II. Part I. Philadelphia. 1850.

The study of Fossils appears to most persons one of the least inviting of all the pursuits in which scientific men engage. It is looked upon by many as not only dry and unattractive, but absolutely trivial and unworthy of the attention of great and serious minds. Polypes and mollusks, the bones of fishes, reptiles, and birds, what is there in these, it is sometimes asked, to repay one for their investigation? What can one learn that is worth knowing, by groping among the remains of the humblest tenants of a former world—the corals, trilobites, and crinoids imbedded in the rocks?

In themselves, these organic remains, at first sight appear, indeed, to have little to interest us. They relate to tribes of animals of the simplest structure, the lowest down in the animal scale, which have generally passed away, many of them leaving no representatives behind them. They are the farthest possible removed from the human species, and the lowest of them seem to be as closely allied to the vegetable as to the animal

races. Nevertheless, the study of their organization and functions, their habits and distribution, has brought out results highly interesting to the physiologist and of the utmost importance in geology. Let us illustrate a little. These inferior tribes of the animal kingdom constitute the zero of the physiologist—his starting point in determining the functions of the various parts of the animal system; and it is only by running his eye along the whole chain of being that he can gain an insight into the economy of the higher races. One of the most startling of the modern discoveries in physiology is the fact, that these higher races commence existence in forms allied to the lower—that at one period the embryo mammal resembles a bird, at an earlier state, a reptile, and at one still earlier, a fish. All animals alike begin as ova; the embryo of the highest is scarcely removed at first from the molluscous animal, and advances through the successive stages up to its matured organization. It is not true that the quadruped is at any stage of its being a bird, a fish, or a reptile, but its resemblance in its immature state to these families shows that their position is a lower one in the animal scale. And in like manner we are able to determine the relative grade of the several species of a family. Thus, those birds which are web-footed only during the first days of embryonic life rank higher in the scale than those in which this character remains permanent. The duck family are of an inferior grade to thrushes, pigeons, and birds of prey.

Now, the principle taught by embryology is the same which we derive from the study of fossils. The order of succession among animals in our geological formations is the order observed in the development of the embryo. In the lowest and oldest rocks, we find the remains only of the humblest tribes of beings—the mollusca, trilobites, and encrinites. As we ascend, we encounter the petrified teeth and scales of fishes; then we reach the

bones of reptiles; next we find those of birds; and finally, mingling in the later beds, we meet with the skeletons of mammalia.

From this brief illustration it will be perceived that paleontology—the science of the extinct tenants of our globe—is not without its bearing upon at least one branch of medicine. Physiology is interested in the progress of geological science. It is deriving valuable truths from the investigation of the structure of those races which, having swarmed in our primitive seas, are now only known by their solid parts that have hardened into stone; and some of the most interesting principles of the science are deriving confirmation from the discoveries of the geologist.

In the prosecution of geology, a knowledge of organic remains is indispensable. It is by these that we determine the succession of strata; they are the "medals of creation"—the characters inscribed on the rocks which inform us of the history of our planet. One of these fossils, apparently unmeaning and valueless—to the uneducated eye as meaningless as the pebble by the brook-side—is full of significance to the man of science. It speaks to him of a specific formation and of a particular age. By it he is enabled to decide on the relative position of the strata from which it came, and to compare them with the strata of other countries. Thus, for example, one of the Encrinites described by Drs. Owen and Shumard, in the hands of a European geologist, is a key to the geology of our country. He needs only to see one of these organisms to decide whether the rocks in which it was entombed belong to one or another of the formations of Europe. We ascertain our geological position by means of these remains. And thus it turns out that trivial as they at first appear, they come to have a wonderful interest when regarded as the characters by which the history of our globe is

to be decyphered. The medals and coins of a country —the old blackletter and other styles of printing, the cotton-gin, the steam-engine, and the electrical telegraph —are not more characteristic of a particular period in human history than are these fossils of a particular era in creation. The trilobite marks one age; the ammonite is peculiar to a later period; nor is the order of their appearance ever reversed. The geologist knows with certainty that the strata which contain the latter are of a later age than those containing the former. When he exhumes the remains of a reptile he is sure that he is not among the rocks of the earliest era; and when he comes upon the fossil bones of mammals, he knows that he is among strata deposited just before the dawn of the existing races. In this view, the remains of these by-gone species may be said to be the basis upon which geology as a science reposes. The geologist can make no progress without a knowledge of fossils.

As different species of animals are now found existing in different countries, so among the remains of extinct species we find some abounding in one portion and others in another quarter of the earth. Some are common to two continents; a few families have survived all the revolutions of our planet, and have had their representatives in every era. The trilobites especially abound in Europe; our continent surpasses all othe countries in the number and variety of our encrinites.

Dr. Shumard and the writer, although they have been but a few years engaged in collecting these beautiful fossils, have already in their cabinet twice as many species as are known to the geologists of Europe. The late Dr. Troost has left behind him a monograph on the Crinoidea of Tennessee, in which he has described more than a hundred species, nearly all of which are new.

It is a curious and interesting fact, that scarcely a single species of Encrinite discovered in the Western

States has hitherto been found in Europe. Of our two hundred species, we incline to believe that not a single one is common to Europe and our country.

Another striking fact is, that each species is confined strictly to a single geological formation. Dividing our rocks into those of the Silurian, Devonian, and Carboniferous periods, we find no crinoid ranging through the three, nor even extending from one into the other. The Silurian encrinites are marked by peculiar features, by which they are readily distinguished from those of the Devonian era, and these again differ widely from those of the Carboniferous period. A family is seen in the older Silurian rocks, but as we ascend in the series it disappears and is succeeded by a family of a different type. This again gives place to genera of another form, and these, in turn, to other genera as we pass through the successive series. The eye of a practiced geologist no sooner rests upon a crinoid than he decides upon its geological position. The family features have been preserved, but the type has changed in successive ages, and the encrinite of the latest formations is a very different animal from that which flourished amid primeval seas.

These animals are extremely local in their distribution and have a limited geographical range. While many other genera are widely diffused, the remains of the crinoidea are found only in a few circumscribed spots. But few species are common to New York and the Western States; a small number range over three or four States, but far the greater number have been discovered at a single locality. They seem to have demanded for their growth and development peculiar conditions, which were afforded by comparatively few parts of the ocean. They probably inhabited shallow water and were affected by slight changes of climate, which circumstance would necessarily impose upon them a circumscribed range. Many of the mollusca, which live in deep water,

extended from New York to Russia, while, as we have seen, probably not a single species of encrinite was a common tenant of the two continents.

The crinoidea appear to have been carnivorous in their habits, many of the specimens in our cabinet having shells enclosed in their arms, as if the animal had been in the act of feeding when it perished.

But this is not the place for a minute history of the habits of this singular tribe of beings; we fear we have already said more respecting them than will be interesting to our readers. But some notice of the subject seemed to be due to our brethren, the authors of the monograph which stands at the head of this article, who are devoting their time and energies to the advancement of natural science in our country. This paper contains the first description yet given of any of these fossil species in which, as we have already remarked, the Western States abound beyond any other quarter of the globe. We will only add, that it is a creditable performance. The descriptions are clear, accurate, and full, and the figures, though not in the best style of American art, are well executed. In the first particular, the work of our Western geologists will compare favorably with the works of that accomplished paleontologist, Jas. Hall, Esq., of New York; in the beauty and fidelity of the figures it is not equal to the volumes issued under his care. It is proper to add that while the credit of the letter-press belongs to the authors of the monograph, the responsibility of the figures rests with the engraver. Y.

Art. VIII.—*The Outlines of General Pathology.* By M. L. Linton, M. D., Professor of the Theory and Practice of Medicine in the Medical Department of the St. Louis University. St. Louis: 1851. p.p. 205. 8vo.

We are glad to meet this unpretending little volume, with the contents of which we are already familiar, hav-

ing read with great interest most of the essays which it embodies as they appeared, some years ago, in the *St. Louis Medical and Surgical Journal.* It professes to be simply the "outlines" of general pathology, but these outlines are sketched with a clearness and a force which induce a wish in the reader to see more from the pen of the author on the subject. They show him to be a philosopher, capable of eliminating and combining the truths of medical science. The principles unfolded in these pages are such as every student of medicine should make himself thoroughly master of, and we do not know a work on the subject which could be more advantageously placed in the hands of young students. The style is simple, clear and forcible, the matter well arranged, and the illustrations practical and adapted to the understanding of beginners. Prof. Linton's aim has evidently been to be useful.

The volume embraces twelve chapters, in which, among the topics discussed, are,—the causes of disease and their modus operandi, semiology; the action of remedies; general hyperemia and anemia; active congestion and inflammation; qualitative changes of the blood; hemorrhage, dropsy, and flux; pathological changes of the solids; Nosology; Medical doctrines.

It was Dr. Linton's intention, when he concluded to publish this volume, to enlarge his original essays; but he states in his preface that laborious professional duties have not left him the requisite leisure to carry out his design. We express the belief confidently, and take great pleasure in expressing it, that these pages contain the germ and elements of a work that, executed as the author is capable of doing, would be eminently creditable to him, useful, and enduring. Such an edition of it we hope soon to see. Y.

SELECTIONS

FROM

FOREIGN AND HOME MEDICAL JOURNALS.

Occlusion of the Vagina relieved by an operation.—In the *American Jour. Med. Sci.*, for July, Dr. J. Mason Warren reports three cases of occlusion of the vagina, one congenital, the other two the result of inflammation after child-bearing, in which he resorted successfully to the use of the knife. One of the operations is thus described:

The patient being fully etherized with chloric ether, an incision was made transversely across the mucous membrane of the lower part of the vagina. This disclosed muscular fibres, which being carefully divided through the aperture thus made, a delicate membrane of dark color protruded. It was suggested by one of the gentlemen present that this might possibly be the peritoneum, which in a case of malformation and non-existence of the vagina might take an abnormal direction. For the purpose of testing this, I attempted to separate it from the surrounding textures, knowing the loose character of the cellular tissue which attaches the peritoneum to the neighboring organs and the pelvis. This was at once found to be impracticable, and on renewal of the effort the resisting part yielded, and the finger passed through into what appeared at first to be the abdominal cavity, so well defined was the anatomy of the walls of the pelvis. The absence of intestines, and the appearance of a small quantity of dark-colored fluid by the side of the finger, soon made it evident that the vagina had been opened.

The size of the cavity occupying the entire pelvis, and the complete absence of os uteri or other boundary, between the uterus and vagina, was on examination sufficiently evident to all present.

By the aid of slight pressure on the abdomen, about half a pint of thick, tenacious fluid escaped. As the uterus did not at once take on contractions, no further efforts were made to evacuate the fluid, but a bit of sponge was introduced into the opening to prevent the parietes from adhering. The vegetations at the orifice of the urethra were now removed by the scissors, and the base of the tumors cauterized with nitrate of silver. To show the extreme sensibility of these tumors, it may be observed that as soon as they were interfered with the patient, although well etherized and perfectly passive through all the previous operation, immediately drew back as if in extreme pain.

At 7 P. M., she was in good spirits, and expressed herself entirely relieved by the operation. The effects of the ether had passed off, notwithstanding she had been kept for three-quarters of an hour fully under its influence. I warned her as to the great danger she incurred from any irregularity in diet or exposure to cold, as I found her disposed to leave her bed, and she was demanding food.

On the 14th September, the day following the operation, she was reported to have passed a good night. The sponge was removed from the vagina, and a free discharge of the peculiar fluid took place; after a few hours it was again introduced. No urine had been passed since the operation; during the succeeding night, however, a copious evacuation of the bladder took place.

On the 17th, she still continued to improve, and the tumor of the abdomen to diminish. The finger passed into the vagina could distinguish the os uteri, as it were, gradually forming itself. It was about the size of a tumbler, with thick edges, and covered with dilated blood-vessels. The sponge tent when withdrawn was very offensive.

As she was urgent to go among her friends, I agreed to-day, the 20th, that she should do so; being conveyed to the rail-road in a carriage with care, and kept in a recumbent position until she arrived at the point of her

destination. She was then to remain a few weeks longer in bed, or on a sofa, without attempting to use any exercise. At the period of leaving town, she was quite well. The urine was passed naturally and without pain, the sensitive tumors of the urethra having been destroyed by the operation. The discharge from the vagina had partially ceased or had been replaced by a serous exudation. Her appetite and the state of her digestive organs were natural.

Hepatico-renal Circulation.—M. Bernard has discovered the existence of a communication between the portal vein, the ascending cava and the kidneys, by means of which the urine is secreted from the blood which has not yet passed through the general circulation. This communication explains the rapidity with which substances taken into the stomach find their way into the urinary secretion, and also how it is that poisons taken into the alimentary canal are sometimes fatal and at others not, as well as why the presence of certain substances given to animals should be detected in the blood at one time and not at others. According to his view "the renal veins have a double duty to perform; during the time of abstinence they conduct the return circulation from the kidneys; during digestion they act as arteries just as the pulmonary veins do for the lungs, and the portal vein for the liver. In effect, during the reflux of blood mentioned above there is a distinct pulsation perceivable in the cava and in the renal veins. This, though difficult to show, yet may be seen by killing a rabit during digestion and opening immediately the abdominal parietes.

"As M. Bernard remarked, when one reflects upon the matter, it is not so much to be wondered at, if we recollect that in fish and in reptiles there exists a porto-renal vein by which a certain quantity of blood passes directly to the kidneys from the mesenteric veins, only a portion being sent to the lungs."—*American Jour. Med. Sci., July*, 1851.

Physiology of Women.—The difference that exists between the European and the Hindoo must be sought *in*

race. When it is recollected that the consummation of marriage among the Hindoos has taken place, at the latest, on the arrival of puberty, during the lapse of more than 3,000 years, and that the practice is sanctioned by ancient laws, and consecrated by custom, it is easy to conceive that those females who were the latest in reaching puberty would be the least sought after for wives; that such women would not unlikely, in many instances, remain unmarried; and that thus (owing to the origination of a preference on this ground in the selection of wives, operating through a long period of time) Hindoo women would gradually come to consist, in a proportion different from that in Europe or elsewhere, of such as by constitution are early nubile. To me there seems nothing extravagant or far fetched in this supposition. The production of a like state of things in England, in any particular district, is quite conceivable. Nothing is better established than that early puberty is a family peculiarity. Let us, then, only suppose families, possessing this kind of constitution, to intermarry, and the peculiarity in question would be propagated, extended, and transmitted, and so a race distinguished by it would be produced.

Dr. Goodeve, in his reply to queries, states that he has known menstruation in the Hindoo continue till the age of fifty. In the table for Toomkoor, the mean age is forty-five years nearly. There are also thirteen instances, headed "menstruation late in life," in the Baboo's table. Six of these were persons still menstruating, one 50, and one at each of the following ages: 56, 63, 64, 67, and 68; likewise, seven that had ceased, at the following ages: 56, 57, 58, 59, 60, 65, and 80 years —instances, of course, as late could be paralleled in any country. No great weight, however, is to be attached to exceptional cases. If we may judge from the Toomkoor table, the mean age at the cessation of the catamenia is full two years earlier than it is here.

The age for a first birth is considerably later in the Deckan than it is in Calcutta. At Bombay, the mean age is little short of seventeen years; in Bangalore, sixteen years and five months; while in Calcutta, the mean is fourteen years and eight months. But, taking the mean age for India, which is fifteen years six and a half

months, we still have a social phenomenon of a very surprising kind, when compared with the age for the same event in Europe. From a register of the time of life at a first parturition in five hundred women of Manchester, chiefly of the class of manufacturing laborers, I find the mean age to be twenty-three years, whereas the mean age for a first birth in Hindostan is earlier by nearly eight years! Moreover, in the English register there is no instance of parturition under the age of 17, while in the Hindoo table, one-half occurs where the mother is under 16, and not one in ten is of the age of twenty and upwards.

A fact, hitherto, I apprehend, unknown to Europeans, is the law of the Shastras, that females should be given in marriage *before* the occurrence of menstruation; and that, should consummation not take place until after this event, the marriage is a sin. Accordingly, it is the custom, in Lower Bengal, to send the girl at the age of nine years to the house of her husband, unless the latter be so distant that it cannot be done: and two ancient Hindoo sages are of the opinion that if the marriage is not consummated before the first appearance of the catamenia, the girl becomes "degraded in rank." Testimony to the same effect is given by Professor Webb, who likewise joins the Baboo in thinking that, in those alleged instances of very early menstruation, a discharge of blood from injury in premature intercourse is the real explanation of the occurrence; a supposition worthy of consideration, when endeavoring correctly to estimate the value of the Calcutta tables. At Bangalore, it would seem that this revolting custom of consummating the marriage before puberty does not obtain, the husband refraining from taking his wife to his own house till not less than sixteen days have elapsed subsequently to puberty. Customs, we know, differ, in different parts of our great Eastern Empire. I had occasion formerly to refer to the diversity of manners, and even morals, in so vast a country. In the present instance it might readily escape notice, when speaking of Calcutta and Bangalore, that these two cities are about as widely apart as to distance, and probably not less diverse in customs and manners, than are Copenhagen and Madrid, the capitals of Denmark and Spain.

Viewing, as we must do, with pity and disgust, the infantile marriages of Hindostan, it is some consolation to learn from Professor Webb that the more intelligent Hindoos of the present day hesitate not to pronounce these early unions as the monster evils of their coutry. —*Roberton on Physiol. and Dis. of Women.*

Chloroform in Gonorrhea.—M. Venot recommends injections of chloroform as an *abortive* treatment in gonorrhea, that is to say, of arresting it in the earliest period of its development; and thinks that it will replace the nitrate of silver, which is so frequently employed for this purpose. Pure chloroform is injected by a glass syringe, the perineum being pressed upon; the first effect is burning heat, then a sensation of cold follows. The injection does less good after the first two or three days of the gonorrhea have passed; but, employed before that time, it almost invariably arrests it. Injected into the vagina, the results were less satisfactory.—*L'Union Med.—Am. Jour. Med. Sci.*

Cod-Liver Oil in Scrofulous Affections and in Consumption.—Dr. Hays stated to the Philadelphia College of Physicians (February 6, 1851,) that he had employed the cod-liver oil extensively, in the Wills' Hospital and in private practice, during the last three years, in scrofulous ophthalmia, in cases of granular lids, in scrofulous enlargement of the external glands, in cases of hip disease, and in the various forms of external scrofula, with the best effects. In scrofulous ophthalmia he had found it of all remedies the most efficacious. Under its use the constitution becomes invigorated, the glandular swellings are dissipated; and the cutaneous affection so commonly met with about the face and ears disappears. He has also employed it in several cases of granular lids with the most favorable results. In this affection, patients are very liable to relapse, from slight causes; this tendency he has found to be removed by the use of the cod-liver oil, alone, or in conjunction with the syrup of

the proto-iodide of iron. In the case of a lad now under treatment affected with scrofulous enlargement of the cervical glands, chronic conjunctivitis, and granular lids, with deposit of lymph in the cornea, and intense photophobia, by the use of the cod-liver oil and proto-iodide of iron, with the occasional application to the eye of the liquor plumbi, all the symptoms of disease are rapidly disappearing. The patient can bear the light without inconvenience, can read small print, and has all the general appearance of restored health. He has escaped a relapse now for four months. The photophobia has disappeared entirely. In another case of excessive photophobia, with granular lids and penetrating ulcer of the cornea, the cod-liver oil has been used (at the suggestion of the *interne* of the Wills' Hospital, Dr. McIntyre), with the most decided advantage.

Dr. Hays has now employed the cod-liver oil in from two hundred to two hundred and fifty cases of scrofulous ophthalmia and granular lids, and in most of these cases the benefit resulting from its use has been very striking.

Dr. Condie remarked that he had employed the cod-liver oil pretty extensively. In all the forms of external scrofula, including scrofulous ophthalmia, he had certainly seen much good result from its use; the indications of strumous disease have very generally ulimately disappeared under its use, while the appetite of the patients has improved, and they have speedily exhibited increase of strength and bulk. It is especially in the scrofulous affections of young subjects that the cod-liver oil had appeared to him to produce the greatest amount of benefit. He had not, however, seen any very striking amount of good result from its administration in cases in which tuberculous deposits had actually taken place in any of the tissues. In tubercular phthisis especially he had rarely, if ever, observed any positive benefit from its use. He had given it in many cases, and in large quantities, and though it had been taken perseveringly by the patients for a long period of time, he could not say that in a single instance the disease of the lungs had been arrested by it. The onward march of these cases towards a fatal termination appeared to him to be as rapid as those in which the oil had not been given.

The wife of a gentleman connected with the public press, now under the care of Dr. C., had used it daily for the last three years, and she believes with very decided advantage. But though in her case the affection in the lungs is of a very chronic character, still the frequent attacks of hemoptysis to which she is subject, and the physical signs revealed by auscultation, indicate, but too clearly, that her disease is making a slow but constant progress.

Dr. Wood said that he should not be doing justice to his own feelings were he not to seize this opportunity of communicating to the College the information on the subject under consideration he had derived from his recent experience. He felt himself the more strongly urged to make this communication from the fact, that in the last edition of his work on the Practice of Medicine, he had stated that the only effect he had observed from the use of cod-liver oil was the production of nausea. Now the reason of this he had ascertained was that he had not persevered sufficiently long with the use of the remedy. Subsequently he had employed it largely and perseveringly, in hospitals as well as in private practice, and most assuredly he had never met with any one remedy or combination of remedies which proved so efficacious as this in pulmonary phthisis. It is too soon, however, to say that in any case it will permanently cure the disease. He has certainly seen cases presenting, apparently, all the phenomena—the general symptoms as well as the physical signs—characteristic of phthisis, get well under its use. The patients have, at least, lost their cough and fever, their respiration has become natural, and they have acquired strength and flesh. In one case which occurred in the hospital, auscultation indicated the existence of a cavity at the summit of one lung, and deficient respiratory murmur in the other. The patient was pale, extremely feeble and emaciated, with hurried respiration, cough, and copious expectoration, hectic fever, and night sweats. Although in this case Dr. W. expected little, even temporary benefit to result from any plan of treatment, still he thought it his duty to place him under the use of the cod liver oil. At the end of six or eight weeks, he was surprised to see the patient able to sit up, and considerably im-

proved in all respects. From that time the unfavorable symptoms gradually lessened, the cough and expectoration abated, the respiration more free and easy, the hectic fever and night sweats disappeared, the pulse increased in strength and diminished in frequency; and, at the termination of four months from the commencement of the treatment, the patient had become fat, ruddy, strong, and, to all appearance, entirely well. Upon an examination of the chest, a deficiency of respiration was detected in the vicinity of that portion of the lung in which a cavity had existed—which is precisely what we should have anticipated. This is the most striking case which he has met with of the cure of pulmonary disease under the use of cod-liver oil.

The natural cure of tubercle is by the tuberculous matter becoming softened, and then discharged by expectoration. Now, if by any means we can so far modify the nutritive process as to prevent a further deposition of tuberculous matter, we may have a reasonable hope of a cure taking place in many cases of tubercular phthisis. We have the record of instances where this has actually taken place; the cicatrices of the discharged vomicæ being apparent, after death from other causes, many years subsequent to the disappearance of the symptoms indicative of phthisis.

In what had appeared to be the incipient stage of consumption, Dr. Wood had seen several very striking instances of the efficacy of cod liver oil. In one case, that occurred in a child, he was convinced that there existed a cavity in one of the lungs. So far as the physical signs derived from auscultation were to be depended on, its presence appeared to be established.—The patient was emaciated, had cough, impeded respiration, and hectic fever. Dr. Wood had some apprehension that it was a case of pulmonary tuberculosis. The child was put upon the use of cod-liver oil, with a proper diet and regimen, and at the end of six weeks the symptoms of disease had so far disappeared that the patient was considered convalescent. He ultimately recovered.

A middle-aged gentleman, who had suffered from repeated but slight attacks of hemorrhage from the lungs, became, subsequent to one of these attacks, emaciated

and enfeebled in strength, with a frequent pulse and obstinate cough. Auscultation revealed, no positive indications of pulmonary disease; but the general symptoms were such as to occasion much solicitude. Under the use of cod-liver oil, and at the termination of six weeks, he began to improve, and finally recovered.

In another case, that of a young man about twenty years old, the patient, who was convalescent from an attack of typhoid fever, became affected with cough, very frequent pulse, expectoration, fever, night sweats, and emaciation. Auscultation of the lungs evinced the probable existence of tuberculous deposition at the summit. Dr. W. considered this patient in imminent danger, unless he should be able to bring to bear upon his case influences more beneficial than those he had formerly had at his disposal. The patient was placed upon the use of cod-liver oil, with an appropriate diet and regimen; and was sent on a voyage to Europe. At the end of about six weeks he began to improve; and, on his return, at the end of three or four months, had lost all the symptoms of the disease, except frequent pulse, which gradually diminished under the continued use of the oil; and when Dr. Wood last saw him he was apparently in perfect health.

Here are three cases, in all of which he considered the symytoms under which the patients laboured to indicate disease of the lungs, of a very critical, and in one, almost hopeless, character. Under the use of cod-liver oil they all entirely recovered—so far at least as a disappearance of the morbid symptoms and a return of strength and vigour can indicate an entire recovery. He was not prepared to say that they were all instances of pulmonary tuberculosis—though there were strong reasons for believing that in most of them such was the case. They indicate, however, the very excellent effects to be derived from the oil in cases of a very troublesome and threatening character. It is important that the use of the remedy should be persevered in for a length of time. There is much, too, sold for cod-liver oil which contains little or none of the genuine article. If it has a strong taste and smell of boot-leather, it may be considered genuine.

Dr. Hays remarked that the communication just made by Dr. Wood was particularly valuable, and furnishes

strong testimony in favor of cod-liver oil as a remedy in phthisis. His own experience of the effects of the article in that disease was but slight and by no means so favorable as that of Dr. W. In one case, however, the oil appeared to him to prove decidedly beneficial. It was that of a boy five years old, laboring under a violent cough, which resisted all the usual remedies. During a paroxysm of crying the patient was attacked with hemorrhage from the lungs, which recurred six times within ten days. In one of these attacks Dr. H. was assured that the child had discharged half a pint of blood.

The cough now became more constant and troublesome; the pulse rapid and feeble; there was expectoration of purulent matter, great restlessness, hectic fever, and excessive prostration. The child was put on the use of cod-liver oil, with a pectoral mixture to relieve the cough. The patient gradually acquired streng'th—the cough and expectoration diminished—the appetite returned, and health was finally restored. Since his recovery he has gone through an attack of pertussis without a recurrence of his pulmonary disease, and he now appears to be perfectly well.

Dr. H. has administered the cod-liver oil in cases of phthisis occurring in adults without any benefit—so far as the arrest of the disease was concerned—though he had no doubt the remedy even in these cases was often productive of good by its influence in improving nutrition. —*Quarterly Summary of the Tran. of the Philad. Col. of Phys.*, vol. i. No. 2, N. S.

Case of Gun-Shot Wound of the Spine. By Charles S. Tripler, M.D., Surgeon U. S. Army.—The interesting and important discovery of the reflex function of the spinal nerves promises so much benefit to the science of medicine that no fact, tending to illustrate or establish Dr. Hall's views, can be looked upon with indifference. I therefore take great pleasure in communicating the following notes of an interesting case, which I made at the bedside of the patient a short time ago. I shall make no remarks upon it, preferring to submit it as it is, for the use of Dr. Hall himself, should it ever meet his eye. I

may, however, be indulged in suggesting that the practical surgeon may derive a hint from it that may save himself and his patient some trouble in a similar case; for, if the titillation of an afferent nerve may, through reflex action, enable him to dispense with the use of the catheter and enemata, it will be no trifling point gained.

During the protracted war with the Seminole Indians in Florida, an officer, traveling from St. Augustine to Picolata, was waylaid and wounded by a party of those savages. He was seated upon the floor of a common baggage wagon; the ball passed through the side of the vehicle before striking him. He was shot on the line of the union of the last dorsal, with the first lumbar vertebra—the ball penetrating at the angle of the ribs, on the right side, two inches above the vertebra, and passing in a direction obliquely downwards and toward the spine. The general direction of the wound was ascertained by the probe, but the ball could not be felt, and where it is lodged remains a mystery to this day.

This took place on the 25th November, 1839. The immediate consequences were loss of motion and sensation below the wounded part, though the sensorial recognition of the lower extremities was that of numbness and tumefaction. When he was received into the hospital, bottles of hot water were applied to his legs, with the effect of causing deep eschars very rapidly, but without producing any sensation. The gun-shot wound healed very readily, leaving the patient in the following condition:—The line of normal sensation began in front, at the anterior superior spinous process of the ilium, descended almost in the direction of Poupart's ligament about half its length, then curved upwards, passed just below the umbilicus, described a similar curve on the other side, and then passed around the back, in nearly a right line, to the point of departure.

The bladder and the rectum were paralyzed; the one was relieved by the catheter, the other by castor oil. The use of the oil was continued for about two years; afterwards, enemata were substituted; lavements of water are still used occasionally. The feces are passed without sensation. The catheter was used for about a year, or a little more. About the beginning of the year 1841, he found that the bladder could be induced to contract, by

tickling the side of the penis, just behind the corona glandis; and he afterwards discovered that the same manipulation would provoke the rectum to discharge its contents; no sensation, in the mean while, being transmitted to the sensorium.

He thinks that titillation of the left side of the penis affects the rectum more than the same operation upon the right.

No sensation of distended bladder calls for relief; but contraction of the toes, and abduction of both thighs, occur at this time, warning the patient of the wants of nature.

Priapism was readily excited, for a time, by friction upon the back or breast; but this seems to have subsided of late years.

The flexors of the toes are permanently about half contracted; by tickling or jerking up the scrotum and testicles, these muscles may be made to act spasmodically.

The temperature of the paralyzed parts is good. He thinks he feels more and more, from year to year, a consciousness of the existence of the limbs, and by an effort of the mind, to fix attention upon them, they ache so much as to render it necessary to desist.

There is not so much corpulency of body as is usual in such cases, nor are the paralyzed extremities so much atrophied as we might expect.

All sorts of counter-irritations, hydropathy, homœopathy, electricity, strychnia, &c., have been resorted to, but without benefit. In 1844 or '45, while trying the sulphur vapor, a jet of hot vapor was thrown upon the sole of the left foot, and took off the whole integument, he being totally unconscious of any sensation.

The urine was ammoniacal and purulent for the first three or four years, but has been less offensive since. If he assumes the erect position, leaning upon his crutches, to empty the bladder, the urine is less offensive than when he is obliged to lie in bed for a few days.

The color of the limbs is natural. He assures me that they were, a few years ago more sallow and more atrophied.—*New York Jour. of Med.*

Case of Popliteal Aneurism Cured by Compression over the Tumor. By H. N. Bennett, M. D., of Bethel, Ct.—The fol-

lowing case possesses no intrinsic value, with the exception of the method of cure, which consisted in pressure applied directly over the aneurismal tumor, and it is for this reason only, that I have thought it worthy of record. Perhaps the fact of the patient having *cured himself* affords some additional interest, as I believe, in this respect, the cure is unique.

Thomas J. Elwell, a blacksmith, 30 years of age, during the winter of 1842–3, suffered from pain about the knee joint, which he supposed to be of a rheumatic character, and applied only domestic remedies for its relief. After a walk of twenty-two miles over frozen ground, the pain and lameness of the knee increased to such a degree, that he consulted me in reference to it. Upon examination, I immediately detected a pulsating tumor in the popliteal region, near the size of a hen's egg, and having all the characteristics of aneurism. This was in the month of March, 1843. At the end of five or six weeks from this date, the tumor had increased considerably in size, so much, that I advised my patient to submit to ligation of the femoral artery at once, as the nature of the difficulty could not be doubtful, and as I had at that time little confidence in any other mode of treatment. Feeling unwilling to endure a surgical operation, he soon went to New York for further advice. He consulted Drs. Mott and Rogers, who both gave him the same opinion which I had done, and urged him to remain at the New York Hospital for operation. He then passed over to Staten Island on a visit to his friends, where he consulted some physician, whose name I cannot recall, who also pronounced it a case of aneurism, but recommended him to try the effects of pressure upon the tumor. He returned home and commenced the application of pressure, *himself*, by bandaging the limb from the toes to the knee, and placing a compress of folded cloth directly upon the pulsating tumor. He persisted in this course for two or three months without the least benefit, when he determined to substitute a firmer compress. Instead of folds of cloth, folds of *sheet-lead* formed the nucleus of his compress, which was applied in the same manner as before. I called upon him occasionally to watch the progress of his treatment, and after the end of ten days after the application of the lead compress, I found him suffering much pain in the knee joint,

from the severe pressure which he had made, but no diminution in the size of the tumor or the force of the pulsations, the latter being readily felt through the compresses when applied with all the force which he could endure. I advised him to discontinue what I considered a hazardous proceeding, and to abbreviate his sufferings by submitting to the usual operation. Notwithstanding, being a man of very strong resolution, he determined to pursue this course still longer, and abide the issue. At this time, however, he threw aside the lead compress, and filled its place with *a ball of caoutchouc*, which he bound upon the tumor with all the force he could endure. Not long after, perhaps two or three weeks, I called again to see him, and was much surprised upon examining the limb (which he exhibited with no little triumph,) to find the tumor much diminished in size, and the *pulsation gone.* I could also distinctly feel several arteries pulsating about the knee joint, evincing an increased development of the anastomosing branches of the femoral. From this time, the tumor in the popliteal space was gradually absorbed, and at the end of a few months had entirely disappeared. This man has since died of phthisis, in New York city.

I think there can be no question in this case, in reference to the diagnosis, since the most experienced surgeons in the country examined the patient, and had no hesitation in pronouncing it a case of aneurism, and recommending ligature of the femoral artery.—*New York Journal of Medicine, July,* 1851.

A Case of Retrocession of the Cutaneous Efflorescence in Rubeola. By C. H. Spilman, M. D.—On the 14th of July, 1850, Dr. James M. Singleton, of this place, was suddenly attacked with symptoms pathognomonic of measles. On the 17th, the characteristic eruption became visible, which, by the day following was fully developed. On the 3rd day of the eruptive stage, he left his room whilst the efflorescence was in full blast: passed about considerably in the open air, subjected himself to a sufficient amount of physical exertion to occasion some fatigue, resulting in an abrupt subsidence of the cutaneous eruption. His rapid convalescence for the time, however, quieted all

apprehensions of serious injury from the sudden suppression. From that time until January following, a period of near six months, he enjoyed his usual health, with the exception of slight paucity of urine, together with a turbid furfuraceous appearance of this secretion. This latter quality, however, was not visible in the recent state. It seemed to possess, to some extent, the property of coagulability upon standing. As there was no accompanying pain, nor any other appreciable deviation from health, it attracted, at the time, but little attention.

About the middle of January last, whilst in attendance upon a course of lectures in the Kentucky School of Medicine, our young friend, as we are informed, after having suffered much from constipation of the bowels, and symptoms simulating a common cold for two or three weeks, was attacked with hectic fever, a dry hacking cough, and copious night sweats, exhibiting a well marked case of incipient *phthisis.*

Greatly emaciated from disease, which had been gradually progressive, he arrived at Harrodsburg on the 9th of March. Acquainted with the previous history of the case, we had a lurking suspicion that the repelled eruption had some agency in the production of the malady. Still, it seemed unaccountable, why the mal-development should have been so long delayed.

As this has been to us a novel and exceedingly interesting case, and as far as we are advised, has not a parallel in the annals of medical science, we will give a brief abstract of its features, progress, and treatment, from the time we took it in charge.

March 20th. Pulse 100. Respiration 25. Tongue slightly coated, rather red. Pain under the right axilla, extending round to the inferior margin of the scapula, increased on respiration. Constriction across the chest. Frequent dry hacking cough, with thirst and febrile exacerbation during the evening, terminating in the latter part of the night in a copious exhausting sweat, and free expectoration, sometimes mucous, but generally of a white, thin, homogeneous character: urine scant and turbid: a heavy dull pain, especially during the apyrexia in the sacral region.

Auscultation of the clavicular region detected a strong respiratory murmur, rather cavernous, mingled at times

with a dry crepitant sound, and at others a gurgling ronchus. Percussion dull under each clavicle, more marked and extensive under the right. The inferior half of the left lung, sounds natural.

Directed:—Tinct. Sanguinariæ and Tinct. Iod. Fer., each thirty drops three times *per diem*, and Sulph. Fer. and Aloes, each three grains at night. Pustulation with Ung. Tart. Ant. upon the anterior surface of the chest.—Diet, chiefly of unbolted wheat flour and milk, with fruits.

This treatment was continued until the middle of April, with but slight amendment, except in the condition of the bowels, which were now in a soluble state. The fever and night sweats, however, were unabating, and the cough persistent. The sanguinaria and Iod. Fer., were now discontinued, and the Sulph. Quinia given with a view to control the paroxysms, and check the exhausting cutaneous evacuations. The quinia mitigated, but did not entirely control the paroxysms. The cough, however, became more frequent; the pleuritic stitches about the chest rather increased, and the expectoration greatly diminished under its use: and auscultation detecting a crepitant *rale*, which had not previously been so audible, the remedy after the fourth day was withdrawn. The iodide of iron being objected to in consequence of its unpleasantness, the myrrh mixture was substituted twice per day, and the aloe and iron pill at night. The stomach, however, did not tolerate the myrrh mixture which was on the 20th discontinued. The sanguinaria was now resumed in doses of thirty drops three times *per diem:* and with a view to control the hectic, the quinine and lactate of iron, two grains of each were given at intervals of three hours, commencing simultaneously with the sweat, and continuing until the paroxysm. The treatment was persevered in until the morning of the 27th, when, judge of our surprise, at finding our patient beautifully peppered over with the eruption of measles, upward of nine months from the date of its abrupt disappearance. The efflorescence was full and uniform: as complete and characteristic as any case we ever witnessed: remaining about the usual period, gradually receding, and, unlike the first appearance, was succeeded by distinct desquamation. But for the ravages the disease had made upon the lungs, as clearly evidenced by auscultation, we should have cherish-

ed some hope of a favorable issue of the case, as the explosion might be presumed, a triumph of the *vis medicatrix naturæ* over the power of the disease. The disorganized state of the lungs, and the exhausted condition of the general system, however, forbade such hope.

Without detaining the reader with the subsequent history of this case, we will simply remark, that the wasting diarrhea, so frequently an attendant of the last stage of *phthisis*, speedily supervened, during which the treatment was necessarily, only palliative, and he died on the 4th of June.

There are two or three inquiries, naturally suggested to our mind by this case which may be of practical importance.

1st. Whether or not the repelled cutaneous eruption had any agency in producing the disease in question?

2d. What the particular character of the morbid action during the latent period, prior to the second incubation?

3d. Would an earlier consummation of the rubeolous malady have been practicable; and had it been effected previous to the pulmonary lesion, would it not probably have saved the patient?—*Trans. Med. Jour., Aug.*

Remarks on the Cooking and Preserving of Meat. By Prof. Liebig.—The view that broth derives its nourishing properties essentially from the dissolved gelatin—an opinion which has frequently been discountenanced in practice—is shown by this investigation to be completely untenable. The gelatin imparts no taste to broth, and forms by far too insignificant a portion to allow of its nutritious properties being dependent upon it. Chopped beef, or veal, previously exhausted in the cold, when boiled for five hours, yielded to the broth, the former 0.5 per cent. and the latter 1.5 per cent. of soluble constituents, of which gelatin formed, at most, but one-half. On the contrary, this investigation confirms the view of Prout, that the peculiar constituents of broth exist ready formed in the flesh, and are by no means merely products of the process of ebullition. The residue of the chopped muscular flesh of different animals—as of the fox and ox—

after having been exhausted in the cold, cannot be distinguished the one from the other; all the peculiarities of the flesh, especially its flavour, depending entirely upon the soluble constituents which are found in the broth.

The researches of Liebig offer a simple and convenient method of preparing, in a few minutes, a broth of the highest nutritive properties. Finely-chopped lean beef is mixed with an equal weight of cold water, and left, if possible, to macerate for a short time, and the whole then slowly heated to ebullition. After gently boiling for some minutes, the clear broth separates from the coagulated albumen, and from the muscular fibre, which has now assumed a sinewy appearance. After straining, it requires only to be seasoned; and slightly colored with burnt onions, or with caramel. The coloring of the broth is nothing but a concession to the common prejudice, which cannot, however, be well dispensed with. By evaporation in a water-bath, or at a still lower temperature, the broth becomes spontaneously colored, and leaves behind a brown extract, possessing a delicate odour of roasted meat; this extract, when dissolved in about thirty parts of water, and flavored with salt, yields, at any moment, a most excellent broth. The advantage of extract of flesh for the nutrition of invalids, its use in hospitals, or in field service, as well as in domestic economy, is sufficiently obvious. We see, likewise, that bone-broth, broth-tablets, &c., being preparations essentially different from a true broth from flesh, cannot enter into competition with it as articles of food.

As an article of commerce, extract of flesh bears somewhat too high a price. It appears, however, to offer a new source of profit to the inhabitants of the different settlements in America and Australia, who might successfully prepare it from their cattle at a cheaper rate, and send it to the markets of our crowded populations.

As to the cooking of meat, it follows that to prepare, by boiling, a rich broth, and, at the same time, a savoury *bouilli*, is perfectly impossible. After preparing broth to the above directions, the meat which remains is perfectly unpalatable, tasteless, and tough, and as dissimilar as possible to the boiled beef of our tables. If, on the other hand, it be desirable to leave in the boiled meat the greatest amount of nutrition and flavour, it must be at once

plunged into boiling water. If the temperature, after some minutes, be reduced to about 158° Fahr. by the addition of cold water, and the water maintained at that temperature until the meat is thoroughly cooked, all the conditions necessary for this purpose will have been fulfilled. If it be perfectly established that pure fleshy fibre —viewed independently of the juice—instead of being softened by boiling, is converted into a horny or sinewy mass, it is evident that this change is prevented by two different means in the ordinary mode of cooking meat: in the first place, by the temperature in the interior of the piece of meat never reaching the boiling heat; and, in the second place, by its being, nevertheless, sufficiently high to coagulate the albumen which surrounds, and, to a certain extent, protects the fibre. The temperature in the interior of the meat is not only sufficient to coagulate the albumen (132° Fahr.), but must attain even the point necessary for the coagulation of the colouring matter of the blood (from 149° to 158° Fahr.).

The investigation of Liebig exhibits the process of salting meat under a perfectly new aspect. The "brine," which meat and salt form when together, amounts to from one-third to one-half of the juice of the meat, and contains the chief constituents of concentrated broth. The brine presents an acid reaction, and, owing to the quantity of albumen present, coagulates when boiled; it contains moreover, phosphoric acid, lactic acid, a large amount of potassa, kreatinine, and, doubtlessly, also kreatine. There can be no doubt, therefore, that salting diminishes the nutricious properties of meat, by the amount of constituents which pass into the brine; hence the explanation of the well-known injurious effect on health produced by the continued consumption of salt meat.—*Liebig's Report*, vol. ii.

Trial for alleged Rape—Curious question of fact—Judge, Jury, and Counsel in a dilemma. By H. G., M. D., of South Carolina.—At our April term in this district, a man was tried for the crime of rape. The rape was alleged to have been committed in the erect position. The defence was based on the supposition, that it was impossible

that such an act could be consummated in that posture; and the jury acquitted the prisoner.

I am not aware that it has ever been attempted to be demonstrated, that a rape could be committed on a woman in the erect position. I infer this, from the fact that no reference was had by counsel, on the trial, to any case of the kind. Chitty, in his Medical Jurisprudence, is silent on this question; nor have I met with anything on the subject, in any work I have read.

The State's attorney admitted he could not conceive how such a thing could be done, but contended that a rape had been clearly proved.

Judge E———, in his charge to the jury, stated, that the finding of guilty, or not guilty, turned entirely on the question at issue. The jury, after an absence of about twenty minutes or half an hour, returned with a verdict of "not guilty."

The woman left the house of the prisoner, where she had been staying all night. She had not gone far before he overtook her; they walked side by side, he embracing her all the time and treating her with great rudeness. Upon crossing a branch, he said he would "do it or die." She replied, she would "die" before he should. Upon this, he confined her left hand under his right arm, with his right arm around her body, and forced her with her back against a tree, in which position the act was consummated as alleged by the woman.

It was proved that the plaintiff had on her back or loins an injury of some kind, which disabled her about three weeks; the plaintiff swore that the hurt was received in the act. This injury could not be accounted for, and was supposed to be a common boil or rising.

It was proposed by counsel to submit the question to physicians, as a question of science, as to whether a rape could be committed in the erect position. The judge objected, saying it was not a question of science, and that any other person could explain as well as physicians.

Now let us inquire, what are the essential conditions necessary to commit a rape in any position? The first and most essential condition is, that the body of the victim be fixed—immovably fixed—so that lateral motion or rotation be impossible, and her hands be so confined that she could not use them to any advantage; these conditions

would be indispensable in the horizontal position. Could they be possibly secured in the erect position? Could the act of copulation be consummated in the erect posture by a man and woman, if both were willing? I think no one will deny this. If, then, the woman can be brought by force and against her will, into the necessary posture, and the other essential conditions secured, there is no reason to deny the possibility of the consummation of such an act.

In the horizontal position the ground would furnish the *point d'appui*, and in the erect position a tree would answer the same purpose. Suppose a man in an attempt to commit a rape in the horizontal position, should find himself foiled in consequence of his inability to fix his victim, or secure the conditions above specified, would he not be greatly aided in his efforts by fixing his hold on any immovable object that might present itself, as a root or bush, &c.? Would not such hold give him much advantage when there was nearly a preponderance of strength on the part of the female? Who has not witnessed wrestlers resort to this means to maintain the advantage they had gained over their antagonist, when without such aid they could not have succeeded in their object.

It was contended to be impossible, that, in the erect position he could have introduced the virile organ without the use of his hands into the vagina. The woman swore, that she felt his "private part in her body." The counsel for the prisoner related an anecdote of "England's Virgin Queen," who, in conversation with one of her courtiers on this indelicate subject, expressed the opinion, that the consummation of such an act was impossible under any circumstances. Taking down a sword and unsheathing it, she requested him to introduce it (the sword) into the scabbard while she held it; every attempt to do so, however, was foiled by an adroit movement of the scabbard. This anecdote, though productive of considerable merriment, contained not a particle of argument, as it excluded one of the essential conditions—viz: the fixedness of the vagina.

In regard to the erect position, it is evident the introduction of the penis into the vagina would be more difficult, other things being equal, than in the horizontal posture; their bodies bearing the same relation to each other

erect as horizontal; on the ground they would be parallel, erect they would be the same.

Again, it was contended that it was impossible, that he could hold her in that position till he could accomplish his object. The prisoner was a strong and active man, and could entirely overpower a weak woman, (for she was not a very strong woman,) and keep her still in that position as well as in the horizontal, with the aid which the tree would afford him.

In answer to many questions put to her, in reference to the position of her arms and his, how he held her, &c., she replied that she was so frightened and agitated that she could not recollect all the minutiæ.

It was contended she might have used her right hand in preventing the final consummation of the act; but it must be recollected her right hand, as well as her left, was confined and pressed between him and the tree, which greatly aided him, at the sametime it rendered her arms powerless and useless. If she attempted to extricate her arms, her elbows would come in contact with the tree, and render all attempts of the kind nugatory. If we suppose he passed his arm, or arms, around the tree, which was proved to be a "spruce pine," the tremendous pressure he would be enabled to exert on her body, would have the effect to fix and render her immovable and powerless; while, on the other hand, the support the tree would afford would enable him to maintain the erect position, and accomplish his diabolical design as effectually as on the ground.

The tree, which was a spruce pine, does not grow very large in this region. The bark of this tree grows very thick, and is divided into deep longitudinal fissures, in which he would be enabled to fix his hold, and would afford him all the advantages necessary to enable him to accomplish his object, and that as effectually as in the horizontal position. Upon this principle, also, we are enabled to account for the injury proved to have existed on her back. The rude pressure against the rough bark of this tree would not only aid him in rendering her immovable, but the muscles of her lumbar region would be contused, and inflammation and suppuration would ensue.

Further, it was contended, that the separation of her thighs, and the introduction of his virile member, could

not have been effected without the use of his hands. But I cannot conceive how this would be more difficult in the erect posture, other essential conditions having been secured, than in the horizontal; and an argument, based upon such a supposition, would be equally forcible against the possibility of such an act being committed in the horizontal position.

Remarks.—We think, with the writer of the foregoing, that the jury acquitted the prisoner on frivolous grounds; for, although the case, as far as our investigations have been pushed on this subject, is without a parallel in the books; yet we not only believe it possible, but deem it almost as easy to commit a rape in the erect as in the horizontal position, especially under the circumstances detailed in the above instance.—*Ed. South. Med. Sur. Journal.*

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LOUISVILLE, SEPTEMBER 1, 1851.

CHOLERA IN LOUISVILLE.

In our last number, we stated that our city continued to enjoy exemption from all epidemic diseases, notwithstanding the excessively hot weather which had prevailed during a good part of July. We had previously ventured to express the opinion, that we should not this season be visited by cholera in an epidemic form, and gave as the grounds of that belief, that the disease had twice visited us in successive years. On the 4th day of August it was announced that one of the candidates for the Legislature, in the third ward, was ill with cholera, of which, although he lingered beyond the expectation of his physicians, he finally died. An occasional case of the disease was reported from day to day. The hot weather returned, and with it we had drenching thunder showers. Wednesday, the 13th, was spoken of as one of the hottest days of the season, and, though the thermometer did not indicate so high a temperature, it was certainly one of the most sultry and oppressive. Next morning there was a report of several cases of cholera on Market street, and on 4th and 5th streets, near Market, in the very centre of the city; and before night seven or eight persons had died. In the course of the day the streets of the city were two or three times flooded with rain, but during the following night it cleared off and became cooler. The day succeeding, the number of deaths amounted,

probably, to ten or twelve, but there was evidently no increase of the disease, most of the attacks having been experienced the previous day. On Saturday, a few new cases continued to be announced in the infected district, and scattering cases were reported in different parts of the city, but still the complaint manifested but little epidemic tendency. There was no increase on Sunday, notwithstanding the return of the hot, sultry weather, which was again accompanied by much thunder and lightning and profuse showers of rain, and on Monday we heard of no new cases of the disease.

Several facts connected with this sudden, local irruption of cholera are noteworthy; and first the character of the weather in which it occurred. No one who was in Lexington in 1833 could fail to be struck with the similarity of the two seasons—the protracted drought, succeeded by repeated, heavy rains, producing an atmosphere saturated with moisture. It may be also worth remarking, that the prevailing wind during this unseasonable weather was from the north-east.

Another most impressive fact is, that the cases which occurred in the district referred to, with hardly a solitary exception, proved fatal. A number of persons doing business in that quarter of the city and a number sleeping there were attacked in other and healthy parts, or carried into them soon after being attacked; but the result was the same—nearly every one died. While this was the case in the infected region, we heard in other quarters of several cases of recovery, in which the first symptoms seemed quite as threatening. It is humbling to the pride of our art to be obliged to add, that this fatality was in no wise attributable to the bad constitutions and bad habits, nor to the neglect of the victims to apply for timely aid. In a few of the first cases no doubt there was delay, for cholera was not suspected; but after the first hours of the morning people and citizens were on the alert and the earliest premonitions of the disorder were regarded. We heard of instances in which physicians were in the house and prescribed for their patients before yet they appeared to be ill, and still the disease marched on to a fatal termination as if nothing had been done to arrest its progress.

The attacks were confined to no age or condition. Two or three lads died, and a number of young men and women. We saw a middle-aged citizen a few hours after he had been seized; he was already in collapse and pulseless, and died three hours afterwards. He was an Irishman, and though not a stout man was apparently in good health the day before this attack. While he was sinking, an Englishman, of

about the same age, of robust frame, who, when first seized, said he had never before been sick in his life, was dying in his neighborhood.

It was the common remark of the physicians that the prostration in all the fatal cases was quite out of proportion to the alvine evacuations, not a few patients dying after a few comparatively trifling discharges. One of the cases to which we have just alluded was of this description; the patient vomited once or twice, had two or three inconsiderable discharges from his bowels, and was in collapse. On the other hand, patients in other quarters of the city had the most profuse evacuations and recovered. Dr. P. Cochran mentioned to us a case which resulted favorably after the patient, at a single discharge, had filled his chamber-pot so full that it ran over upon the floor. In the former case, the subjects seemed to be asphyxiated by some subtile poison; they were the subjects of genuine cholera *asphyxia*. Contemporaneously with these malignant cases, attacks of ordinary cholera morbus were occurring about town, which physicians found easily manageable and without any tendency to assume a malignant form. Even when neglected and the alvine dejections were copious, there was still no approach nor disposition to collapse in these cases.

In a number of instances, more than one fatal case occurred in the same house and family, but no where beyond the limits of the pestilent district. Not an instance has come under observation in which the disease appeared to be transported.

It is certainly a remarkable and interesting fact, that the disease which sprung up so suddenly and with so much malignity, and, we may add, without any visible local cause, did not manifest any tendency to spread, but after a day or two began to decline when scarcely a single inhabitant of the sickly region had deserted his house. In some cases, the sudden cessation of the epidemic has been ascribed to the flight of the citizens; but here there was no such cause to account for it. Business has continued to be transacted, and the people of that district have eaten and slept in their houses as if no pestilence had seemed to impend over them.

Circumstances still indicate, we think, that Louisville will escape a visitation of epidemic cholera. The disease, with much that is inscrutable, exhibits great constancy of character as respects its progress. While we write, we hear of its appearance in Versailles, two years after its visit to Lexington; just as was the case when it was epidemic in our country before. On three different occasions it broke out in Louis

ville during its former reign, but never became epidemic. Returning again and again it was still very much confined, in each irruption, to certain circumscribed localities. We have now been visited by it three successive years. In 1849 its prevalence was more general; last summer it broke out, with alarming malignity, first in the lower and then in the upper part of the city, but subsided in a short time without becoming epidemic. In its late descent, as we have seen, its ravages, though frightful, were restricted to an area bounded by a few squares. If it is to conform here as it has done so generally elsewhere to its former course, it ought now soon to disappear from Louisville without becoming epidemic.

Bearing upon the portability of the cause of cholera, these facts are curious—that a man who had been on the river and in Louisville during this out-break of the disease, went into the country near Charlestown, Ind., sickened and died; that two members of his family were also seized with cholera and died, and two or three relatives who visited them also contracted the disease and fell victims to it; while at the same time the hundreds of persons who were in daily and hourly intercourse with the sick in Louisville failed to carry the infection beyond the striken district. Not a few of the friends who waited on the sick and dying contracted the malady and died in various parts of the city, but in no instance was the infection spread by them. It can hardly be said, that it was because our city was free from all the causes generally esteemed favorable to the propagation of cholera, that the disease did not become epidemic. So far from this being the case, we doubt whether our streets ever afforded the conditions of disease in a higher degree—"The offence is rank and smells to heaven," was the remark and the feeling of everybody. Nor can the favorable issue be justly set down to the weather. Just the very meteorological conditions had obtained which are reputed the best calculated to excite epidemic cholera, and though there was a favorable change of weather the day after the irruption of the disease, the clear, bracing air did not prevail long. On Sunday the rains returned, and the streets of the city were again flooded, the air at the same time being hot and sultry. Notwithstanding, the number of cases continued rapidly to diminish, and during that week, from the best information we have been able to obtain, only two or three people died of cholera. We conclude therefore, that while it would be illogical to say that the weather and foul streets have nothing to do with cholera, cholera may abate in the midst of dirty streets and the worst sort of weather.

Y.

MEDICAL CONVENTION.

We take pleasure in publishing the following call for a convention of the Physicians of Kentucky. We trust that the call will be heartily responded to from all parts of the State, and that the meeting in Frankfort will be full, cordial, spirited, and harmonious:

To the Medical Profession in Kentucky:

After much deliberation and consultation, the undersigned are fully convinced that the general interests of our time-honored profession and the public welfare alike demand some concentrated association and action on our part. We therefore venture to request our brethren of every county in Kentucky to meet us in convention at Frankrort on the 1st day of October next, for the purpose of organizing a State Medical Society—to frame a constitution for the government of the same, and to take steps to procure from the Legislature such chartered rights and privileges as may be deemed necessary to give permanency and efficiency to the association.

Similar societies exist in almost every State of this confederacy—the broad and swelling streams of general and professional literature are flowing in upon us on every side—and shall we ingloriously stay or obstruct their onward course, or adopt the more noble part of contributing, if but some small rivulets, to the swelling tide? This age of progress and practical improvement will not tolerate inaction, or permit us to remain stationary—we must advance or retrograde. If we are not content to lag dishonorably far in the rear of our sister States, we must arouse ourselves to vigorous effort, and seek to concentrate and garner up, for present use and future reference, the rich fruits of daily observation, now available only to the immediate observer. The head, the heart, and the hand must co-operate in this great work—then may we hope to awaken a spirit of virtuous emulation in the profession; to protect the public from gross imposition by imparting useful information to the people at large; to draw deep and permanent the line of demarcation hetween the man of science and the pretender; to enlarge the sphere of our usefulness; and to build up a reputation worthy of our self-sacrificing and noble pursuit.

Permanent among the benefits that may be anticipated from an association, such as we contemplate, we may enumerate the following:

It will be the means of nurturing in the members of the profession a kindlier spirit toward each other—thrown periodically together, they will

grasp the warm hand of friendship—interchange the results of thought and experience—rub off all asperities—drown petty grievances—stifle animosities, and unite in the christian and philanthropic labor of promoting harmony and good will among the members of the profession.

It will confer upon the profession all the vigor and power of concentrated and associated action.

It will be the means of diffusing more widely correct principles.

It will furnish occasion to compare the results of varying modes of treatment, and thus promote successful practice.

Arousing a spirit of inquiry and emulation to the very borders of the State, the practice of recording observations, as they occur, will become more general, and thus be the means of perpetuating much important practical information that would otherwise be lost.

It will be the most formidable obstacle to the desolating spread of knavish quackery. As some guarantee of suitable education must be required before medicine can confer upon society all the manifold blessings it is capable of dispensing, a proper effort on the part of the whole body of respectable practitioners of Kentucky may, doubtless, secure from intelligent legislators some enactment establishing a standard of qualification for those who propose to assume the responsible duty of taking charge of the public health.

It will be an efficient instrument for the correction of popular errors.

It may secure and put in permanent form the vital statistics of every county in the State.

It will give an impetus to the much-neglected study of public hygiene, and may draw the attention of the Legislature to that important subject—pointing out and directing the reforms that may be required to promote the public health.

It may make sufficient developments to satisfy our legislators of the importance—moral, political, and medical—of a systematic registration of marriages, births, and deaths.

It will accumulate accurate information in regard to the modifying influences of local causes on disease—will bring to light such diseases as may be peculiar to certain localities, and furnish the most abundant material for a complete history of past and future epidemics.

It will secure a permanent and authoritative record of such improvements and discoveries as have been or may hereafter be made by distinguished members of the profession in this State—thus redeeming for Kentucky the honor conferred upon her by such benefactors as McDow-

ell and Brashear, and securing to her the credit of any future achievement of her cherished sons.

It will digest a uniform code of Medical Ethics, the observance of which will, in no long time, wipe out the standing reproach that "doctors will disagree."

Such are some of the objects we propose to effect by the organization of a State Medical Society. All regular practitioners in the State are equal in rights, and are alike interested in the results that may flow from his organization, and of course ought to be consulted. We therefore invite the attention of our brethren to this important subject, and we cannot but indulge the hope that it will appear to them in the same imposing light that it does to us, and that we shall have the pleasure of meeting a representation from every county in the State, at the place and time designated.

H. S. Chipley, M.D., W. T. Shortridge, M.D., S. M. Letcher, M. D., J. S. Halstead, M.D., H. M. S. Killman, M.D., Benj. P. Drake, M.D., Jno. C. Darby, M.D., Wm. B. Cromwell, M.D., Jno. R. Desha, M.D., D. J. Ayres, M.D., Jos. G. Roberts, M.D., W. L. Sutton, M.D., Wm. H. Barlow, M.D., J. M. Barclay, M.D., P. Rankins, M. D., H. Craig, M.D., L. S. Errieson, M.D., W. B. Paxton, M.D., Jas. M. Williams, M.D., John T. Parker, M.D., Ben. Hensley, M.D., W. C. Sneed, M.D., J. M. Mills, M.D., D. W. Roper, M.D., Ben. Monroe, M.D., E. .H Watson, M.D., Charles G. Phythian, M.D., J. B. Newman, M.D., John Mills, M.D., S. F. Gano, M.D., J. D. Winston, M.D., John Sutton, M.D., Lloyd Warfield, M.D., J.W. Knight, M.D., U. E. Ewing, M.D., T. S. Bell, M.D.

MEDICAL SOCIETY OF TENNESSEE.

We have just received a copy of the Proceedings of the twenty-second annual meeting of the Medical Society of Tennessee, held at Murfreesborough, April, 1851, and find them replete with interesting matter, of which we shall avail ourselves in succeeding numbers. We have marked several of the cases reported and shall from time to time transfer them to our pages. Among them we were pleased to recognise a number from the pens of some of our valued correspondents. The Medical Society of Tennessee is one of the most venerable of the scientific associations of the West, having now continued for nearly a quarter of a century. If it cannot boast of a very vigorous or very

prosperous career, it has at least the credit of having out-lived many similar institutions; and it is no slight credit to the few members who have sustained it so long, that they rendered the last one of the most interesting of its many meetings. Y.

UNIVERSITY OF LOUISVILLE.

The attention of medical students is invited to the preliminary course of Lectures announced in this institution.

CIRCULAR.

We invite attention to the following circular.

Sir:—The committee of publication respectfully submit to you as a member of the American Medical Association, the following statement:

The whole amount received from the assessment for 1851 has been about six hundred dollars, which, with the balance in the treasury at the last report (four hundred dollars,) makes one thousand dollars.

It is estimated that the cost of Vol. IV. will be about seventeen hundred dollars; the expense of printing the Reports being one thousand dollars, and of the Prize Essay, with the necessary illustrations, nearly seven hundred dollars.

But the committee are without the means for that purpose, and they appeal to the Association to furnish them. A large number of copies of the three volumes already published remain unsold, and, if the members will complete their sets, and use their influence to extend the sale of these volumes, the reqaired sum may be readily raised.

The Committee call the attention of the Association to the terms upon which the published volumes are now furnished to members, or to societies which have been represented in the Association.

Either of the first three volumes separately (paper covers)	$1 50
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In all cases, the amount must be remitted to the Treasurer of the Association, Isaac Hays, M.D., Philadelphia.

Your earliest possible attention to the above is earnestly solicited, to avoid great delay in the publication of the forthcoming volume of the Transactions.

ISAAC HAYS, M. D.,
Ch'm of the Com. of Pub. Am. Med. Ass., and Treasurer.

Philadelphia, Aug. 1, 1851.

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